



SEVEN OAKS
Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

Seven Oaks Classical School, Inc.



The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.



Table of Contents

EXECUTIVE SUMMARY	3
MISSION AND VISION	3
EDUCATIONAL NEED AND TARGET POPULATION	3
COMMUNITY ENGAGEMENT	3
EDUCATION PLAN/SCHOOL DESIGN	3
VISION FOR GROWTH	4
GOVERNANCE AND LEADERSHIP	4
SECTION I: EVIDENCE OF CAPACITY	5
FOUNDING GROUP	5
SCHOOL LEADER AND LEADERSHIP TEAM	6
GOVERNANCE	7
SECTION II: SCHOOL DESIGN	10
CURRICULUM AND INSTRUCTIONAL DESIGN	10
CLASSICAL MODEL OF EDUCATION	11
OVERVIEW OF CURRICULUM	14
EVIDENCE-BASED SUPPORT	15
SUPPORT FOR THE CORE KNOWLEDGE SEQUENCE (K-8)	16
SUPPORT FOR THE RIGGS READING PROGRAM	16
SUPPORT FOR THE SINGAPORE MATH METHOD (K-7)	17
SUPPORT FOR EMPHASIZING CIVICS	17
SUPPORT FOR INCORPORATING PRIMARY SOURCE DOCUMENTS	18
SUPPORT FOR TEACHING THE VIRTUES	18
ENSURING HIGHLY EFFECTIVE TEACHERS	19
PUPIL PERFORMANCE STANDARDS	21
HIGH SCHOOL GRADUATION REQUIREMENTS	21
SCHOOL CALENDAR AND SCHEDULE	22
SCHOOL CULTURE	22
SUPPLEMENTAL PROGRAMMING	24
STUDENT RECRUITMENT AND ENROLLMENT	31
STUDENT DISCIPLINE	33
PARENTS & COMMUNITY	33
SCHOOL NAME & TYPE	33
ENROLLMENT BY GRADE	33
2014 A-F GRADE	33
PERFORMANCE MANAGEMENT	37
SECTION III: IMPLEMENTATION PLAN	39
SCHOOL STAFFING STRUCTURE	39
PROFESSIONAL DEVELOPMENT	42
START –UP & OPERATIONS	44
FACILITY PLAN	45
BUDGET & FINANCE	46
SECTION IV: INNOVATION	47
FOUNDATIONS OF INNOVATION	47
ATTACHMENTS	48



Proposal Narrative

Executive Summary

Mission and Vision

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue. Seven Oaks prepares its students to be leaders in their homes and communities, entrepreneurs in business, and statesmen in government. Through its demanding curriculum with a strong emphasis on civics, Seven Oaks provides a traditional education with a constant view toward developing knowledgeable American citizens.

Educational Need and Target Population

Seven Oaks Classical School seeks to fill the need for a classical liberal arts option within Monroe County. This option is currently unavailable in private or public schooling options and is unique to this area. Seven Oaks Classical School will target all students within Monroe and surrounding counties who desire a content-rich, rigorous, and time-tested learning curriculum in an atmosphere that promotes and builds strength of character. Seven Oaks envisions primarily serving students from Monroe County, but welcomes students from all surrounding counties. Across the nation, Hillsdale-affiliated schools have exhibited high performance as evidenced by test scores, exit exams, and other awards and accolades. More broadly, schools adopting a classical curriculum have been spreading and expanding at an increasing rate. These schools have similarly exhibited impressive results. In our conversations within the community, it is clear that parents and families are yearning for just this kind of educational option.

Community Engagement

Seven Oaks Classical School plans to reach out to and work together with other schools to continue providing quality educational opportunities for the children of Bloomington. Currently, Seven Oaks Classical School is a member of the City of Bloomington Volunteer Network. We have also begun to make connections with elected officials to bring to them awareness of current and needed educational options for the families of our community. Seven Oaks has reached out to various organizations: Girls, Inc. in hopes of securing an opportunity for the girls at Seven Oaks either through an outreach program at our school or increasing membership at their facility and making their organization known to our families; Boys and Girls Club, in hopes of securing an opportunity for the boys and girls at Seven Oaks and making their organization known to our families; Cub Scouts, in anticipation of developing and maintaining a troop at Seven Oaks; Girl Scouts, in anticipation of developing and maintaining a troop at Seven Oaks; and Stafford Music Academy, in hopes of hiring teachers for our music program and possibly hosting private music lessons at our facility. It is Seven Oaks' plan to reach out to additional local organizations such as Big Brothers/Big Sisters, Best Buddies, the YMCA of Bloomington (South and Northwest), City of Bloomington Parks & Recreation, and other such groups. We intend to raise awareness of the classical model of educating children that Seven Oaks Classical School will provide and welcome partnerships with the aforementioned organizations to provide outstanding opportunities to all Seven Oaks students.

Education Plan/School Design

To achieve our mission, Seven Oaks will emphasize an education in the humanities, the sciences, and the arts in several current and research-based curricula/programs in the elementary and middle school, which will include: the Core Knowledge Sequence — a specific, grade-by-grade core curriculum of common learning; Riggs Institute's The Writing & Spelling Road to Reading & Thinking for teaching "explicit"



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

phonics, reading, and language arts; and Singapore Math — a conceptual approach to mathematical skill building and problem solving. Teachers will train students at all levels in Socratic seminars to encourage intelligent, logical, and independent thinking. Seven Oaks' curriculum with the supplemental programs has proven to be successful for all students, including special needs students and English Language Learners (ELL).

Seven Oaks is an innovative school in Monroe County. First, students will study Latin beginning in the elementary grades. They will learn Latin roots, which improves reading comprehension and vocabulary. In addition, students will also study history mainly through primary source documents to promote analytical skills and essential insight into their culture and heritage. Another unique aspect of Seven Oaks is the instruction in the classical virtues. These will be integrated throughout the curriculum and for all grade levels. At Seven Oaks, high academic achievement, personal discipline, ethics, and personal responsibility will consistently be reinforced through the study of subjects in the classical tradition. In order to determine academic levels, teachers at Seven Oaks will use assessments provided by Riggs and Singapore Math to appropriately place students in the correct literacy and mathematics ability group.

Classical education upholds a standard of excellence and has proven itself over the course of time. We believe Seven Oaks' high standards and research-based curriculum will provide students a rigorous and robust education that will challenge them to excel not only in academics but in character development. Students will graduate from Seven Oaks as highly literate, knowledgeable, and ethical citizens who are well prepared to be responsible members of their families and communities.

Vision for Growth

Seven Oaks' plan is to open with grades K-8 with 54 students at each grade level, with there being 18 students per class in grades K-2 and only 1 section of 8th grade; in year 2 the plan is to add grade 9 and the second section of 8th grade. In year 3, we will add 10th grade; in year 4, we will add 11th grade and in year 5, we will add 12th grade. Additionally, a K-12 school will offer students and families continuity of educational pedagogy and school philosophy and culture. It should be noted that five Hillsdale-affiliated schools have expanded at such an alarming rate that there are 2,132 students wait-listed out of the eight schools, with all of the schools at or near their enrollment targets.

Governance and Leadership

Seven Oaks Classical School will seek the advice of Hillsdale College's Barney Charter School Initiative in creating and implementing the school's academic program. It will also work with Indiana Charters, which will provide contract services for various office and administrative needs. The Barney Charter School Initiative is devoted to the education of young Americans. There are currently eight affiliated schools in six states serving approximately 3,899 students. To advance the founding of classical charter schools, Hillsdale College works with school founding groups, which consist of parents and local citizens who care deeply about education.

The founding board members of Seven Oaks Classical School are a diverse group of professionals, parents, and local citizens skilled in various disciplines. This highly skilled group of professionals includes a local attorney with a decade of experience in school law, a professor emeritus from Indiana University's Kelley School of Business, the president of a local CPA firm, a speech and language pathologist with Indiana University Health, a teacher with Bloomington Classical, a special education teacher who specializes in communication disorders, a technology manager from Indiana University, and a behavioral health technician with Bloomington Meadows Hospital. They are devoted to establishing a charter school that succeeds in training the minds and improving the hearts of young people. All board members share a belief that every child can learn and deserves an exceptional classical education in the liberal arts and sciences with development in moral character and civic virtue.



The governance structure of the school will be composed of a board of directors and other standing committees that will have set duties and responsibilities as outlined in the by-laws. The standing committees will consist of, but will not be limited to, an executive committee, a finance committee, a building committee, and an education committee. Other responsibilities of the board of directors will include, but will not be limited to, final approval of the budget, the development of school policy, and dismissals and election of the board officers.

SECTION I: EVIDENCE OF CAPACITY

Founding Group

1. Identify the key members of the Founding Group for the proposed school. Identify only individuals who will play a substantial ongoing role in school development, governance and/or management, and will share responsibility for the school. These may include proposed governing board members, school leadership/management, and any essential partners who will play an important ongoing role in the school's development or operations. See Attachment 1.

The following individuals are on the Seven Oaks Classical School's Founding Board of Directors:

Lindsey Weaver	Hearing Specialist, Monroe County Community School Corporation
Matt Wolf	Technology Manager, Indiana University
William Scott, PhD	Professor Emeritus, Indiana University Kelley School of Business
Fred Prall	Certified Public Accountant and President of Prall & Company
Terry English	Attorney at Law, Private Practice
Jazzmin Vegeler	Behavioral Health Technician, Bloomington Meadows Hospital
Brigitta Powers	Teacher, Bloomington Classical
Linda Murphy	Speech and Language Pathologist, First Steps of Indiana

The following individuals will play an important role in Seven Oaks Classical School:

Phil Kilgore	Director of the Barney Charter School Initiative, Hillsdale College
Rebecca Fleming	Assistant Director of the Barney Charter School Initiative
Kevin L. Davis	CEO, Indiana Charters
Laurie Serak	Educational Service Provider, Indiana Charters
Brian Anderson	Educational Service Provider, Indiana Charters

See Attachment 1 for Founding Board Member Resumes.

2. Identify any organizations, agencies, or consultants that are partners in planning and establishing the school, along with a brief description of their current and planned role and any resources they have contributed or plan to contribute to the school's development.

Seven Oaks Classical School has specifically partnered with Hillsdale College and the Barney Charter School Initiative. The Barney Charter School Initiative is a project of Hillsdale College devoted to the education of young Americans. Through this initiative, the college supports the launch of classical charter schools. These schools will train the minds and improve the hearts of young people through a rigorous, classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue. To advance the founding of classical charter schools, Hillsdale College works with school founding groups of parents and local citizens who care deeply about education, who plan to apply for a charter, and who are interested in an association with Hillsdale.

A charter school fortunate to receive assistance from Hillsdale College is not charged a fee. Instead, in fulfilling its own mission, at no cost to the charter, the Barney Charter School Initiative offers guidance from professors and resources and guidance on the development and operation of a school's academic program, policies, curriculum and teaching practices, consistent with the terms and conditions of the



school's approved charter application. Hillsdale also assists with the search and appointment of a Headmaster. In all instances, the terms and conditions of the school's approved charter application shall control all decisions. Hillsdale College may offer advice with respect to strategies for the operation of the school, such as improving the performance of students. However, the decision whether to implement any particular strategy will be made solely by the school. There is no partnership, employer-employee relationship, agency relationship or any relationship implying control over the school, the governance of the school, or the operations of the school. All decisions with respect to the curriculum and teaching materials of the school are made by the school and consistent with applicable laws and regulations, and the approved charter application. Hillsdale provides teacher education seminars, a Principal Boot Camp and other professional development. Hillsdale provides a model and does not replicate schools. Hillsdale is currently assisting eight classical charter schools in the United States (2 in Georgia, Florida, Arkansas, Nevada, 2 in Texas, New Mexico) that are beginning their first, second or third year of operation. Four of the schools opened K-10, while the others opened K-8 or K-6. Most are operating at or near full capacity, and are fiscally sound. Hillsdale is working with several additional groups in various stages of seeking a charter, including the board of Seven Oaks Classical School.

Seven Oaks Classical School has also chosen to partner with a unique educational service provider, Indiana Charters LLC, to provide back-office and support services as well as operational knowledge, experience, and expertise. The Indiana Charters/Seven Oaks team will provide extensive services and support through the first year of operation. These services transition gradually through a teaching and mentoring phase that will prepare the Seven Oaks staff to operate independently after the third year of operation.

3. Explain the circumstances and motivations that brought the Founding Group together to propose this school.

Since well before 1983, educational scholars, parents, and other interested parties have been aware that the vital needs of our student populations at large are not being met. In 1983, for example, a study conducted by the National Committee on Excellence in Education warned that “while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundation of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur—others are matching and surpassing our educational attainments.” (*A Nation at Risk*, April 1983) The Seven Oaks Classical School Founding Board came together to propose this school from a desire to increase the quality of education provided to the families of Monroe and surrounding counties. The members of the board share a passion for civic virtue, moral character, and the appreciation of liberal arts learning.

School Leader and Leadership Team

1. Identify the Principal/Head of School candidate and explain why this individual is well-qualified to lead the school in achieving its mission. Summarize the proposed leader's academic and organizational leadership record. Provide specific evidence that demonstrates the leader's capacity to design, launch, and manage a high-performing charter school. If the proposed leader has never run a school, describe any leadership training programs that he/she has completed or is currently participating in. Also provide, as Attachment 2, the qualifications and resume for this individual. If no candidate is yet identified, explain your timeline, criteria, and process for recruiting and hiring the school leader.

The Seven Oaks founding board has begun its search for a headmaster candidate. Additional information regarding a potential candidate is provided in Attachment 2. Our goal is to have a headmaster in place by the beginning of February, 2016. We will be assisted in this process by Hillsdale College and the Barney Charter School Initiative. This initiative assists classical charter schools in finding suitable leaders. This initiative was specifically chosen for multiple reasons, one of which is to ensure that candidates have a



solid understanding of classical education and a dedication to the liberal arts and the teaching of civics. Preferred candidates will have a master's degree, teaching experience at the K-12 or college level, a record of leadership, and demonstrated abilities in speaking and writing.

Our headmaster, accountable to the governing board, will coordinate the hiring of teachers and staff, the implementation of classical liberal arts and civic-minded curriculum, the establishment of a studious and decorous school culture, the maintenance of a healthy enrollment, and the pursuit of financial integrity. In addition, he/she will work to foster an understanding of liberal arts education and the virtues of school choice among parents and the larger community. In all of his/her work, the headmaster will draw upon the advice and experience of Hillsdale College faculty involved in the charter school initiative. See Attachment 2 for a complete job description and timeline for hiring the headmaster.

2. Who will work on a full-time or nearly full-time basis immediately after approval to lead development of the school? How will this person be compensated?

Until a headmaster is hired, the founding board will lead the development of the school. Once a headmaster has been selected, the headmaster will take a leading role in school development, with the board serving in a largely advisory capacity. The board will work on a volunteer basis, while the headmaster will be compensated out of the school budget.

3. Describe the responsibilities and qualifications of the school's administrative/management team (beyond the school leader). If known, identify the individuals who will fill these positions and provide, as Attachment 3, the qualifications and resumes for these individuals. If these positions are not yet filled, explain your timeline, criteria, and process for recruitment and hiring.

The assistant headmaster and all other faculty will be hired by the headmaster, with assistance available from Hillsdale College as necessary. Candidates will be drawn from Hillsdale College and other liberal arts colleges, from teachers at existing schools, and from those transitioning into the teaching profession from other careers.

The headmaster will begin hiring the remaining staff by spring 2016. Like the headmaster, teachers, and other staff will be drawn from those supportive of and knowledgeable about the classical liberal arts tradition. See Attachment 3 for a complete job description for assistant headmaster.

GOVERNANCE

1. Governance Structure and Composition. Describe the governance structure of the proposed school. Describe the current and desired size and composition of the governing board. In addition, list the name of each current board member within the proposal narrative. In Attachment 6, provide a completed and signed Board Member Information Sheet for each current Board member for the governing entity/charter holder.

The board of directors for Seven Oaks Classical School will consist of no fewer than five and no more than nine members and will be led by an executive team to include, at minimum, a president, a vice-president, and a secretary, and, if deemed necessary, a treasurer. See Attachment 6 for the Charter School Board Member information sheet for the current founding board members.

2. Pre-Existing Nonprofit Organization. If this application is being submitted by an existing nonprofit organization or institution other than a charter school governing board, describe what steps the existing board will take to transform its board membership, mission and bylaws to support the charter school, and to comply with Indiana's Public Access Laws, including the Open Door Law.

Seven Oaks' application is not being submitted by an existing nonprofit organization or institution.



3. Governing Entity's Responsibilities. Explain how the proposed governance structure and composition will help ensure that there will be active and effective oversight of the charter school.

Seven Oaks Classical School will be governed by the governing board and managed by its headmaster pursuant to the school's charter and duly adopted by-laws. The governing board will be responsible for adopting policy, overseeing the management of the school, and ensuring financial compliance and responsibility. In addition, the governing board will ensure that the mission and goals of the charter are carried out by engaging in strategic planning. The governing board will not be involved in the daily operations of the school but will hire a headmaster, who will be evaluated at least annually. The headmaster, in partnership with the governing board, will decide upon the timing of the evaluation of the headmaster's performance. The governing board will make sure the headmaster manages Seven Oaks in compliance with the school's charter and with all state and federal laws and regulations.

The governing board will perform ongoing assessments of the school and its programs and operations. It will also routinely assess its own performance. Governing board members will participate in and develop short- and long-range plans for the school. The board will monitor the effectiveness of the school's programs and their implementation to determine if the school has met its stated goals.

The headmaster will report to the governing board at regular meetings about the school's operations. The headmaster will serve as liaison between Seven Oaks and the school's authorizer. The headmaster will present his/her recommendation to the governing board on any subject under consideration prior to action taken on the subject, if requested. The headmaster will be required to attend all governing board meetings.

The headmaster will be responsible for overall instructional leadership for the charter school, including the discipline of students if needed, and the planning, implementation, and supervision of the educational program of the school. The headmaster will have authority over all personnel matters, including hiring, disciplining, and terminating all school employees, subject to board approval. The headmaster will periodically evaluate Seven Oaks employees as provided for by Indiana law and Seven Oaks policy.

The headmaster will establish and maintain an appropriate community relations program. He/she shall uphold and enforce the charter, Seven Oaks' governing board policies, and local, state, and federal laws and regulations. Personnel under the supervision of the headmaster, as identified in the organization chart, include the business manager, assistant headmaster, administrative assistants, and teachers. Personnel under the supervision of the assistant headmaster, as identified in the organization chart, include the nurse, educational assistants, and ancillary staff.

The work of governing and overseeing the school is divided among the board members as indicated by the subcommittee structure. Each committee meets monthly and reports to the board as a whole each month. The structure ensures that the board is always informed about the status of the various aspects of school governance. See Attachment 14 for the organizational flow chart.

4. Procedures. How many times has the current board met to date? What will be the planned frequency and focus of meetings? Identify any standing subcommittees the board expects to have. Describe how the school and governing board will comply with Indiana's Public Access Laws as described within IC § 5-14.

The current board of directors for Seven Oaks Classical School has been meeting since July, 2013. The board as a whole will meet on the first Wednesday of each month, and each committee will meet on the third Wednesday of each month, as well as any other times deemed necessary. The board meetings will discuss new business as well as hear reports from the committees. The meetings of the committees will focus on business related to their particular functions.



Seven Oaks will fully comply with Indiana's public access laws and other laws required by the state of Indiana. The board of directors will maintain a schedule of planned board meetings on the school website and will meet in a location that is accessible to the community surrounding the proposed school location. Regular board meetings, both times and date, will be posted at the school two days prior to the meeting being held. Special meetings will be posted at the school and on the school website at least 48 hours prior to the meeting. The agenda and minutes of every board meeting will be published on the school's website and will be available in the school office. All school policies approved by the board of directors will be available for viewing on the school's website and in the school office.

5. Ethics and Conflicts of Interest. Describe the board's ethical standards and procedures for identifying and addressing conflicts of interest.

Seven Oaks Classical School's by-laws will address the conduct of its board members. Members will be required to sign conflict-of-interest disclosure statements, be familiar with their responsibilities as members in the context of open meetings, and clearly understand their ethical and fiduciary obligations to the school. Board members will participate in governance training as developed through the Hillsdale College Barney Charter School Initiative, Indiana Charters, Indiana Youth Institute, the Department of Education, and other training opportunities as they become available. Board members will also participate in training necessary to ensure the success of the school and the board of directors' obligation to the school. The by-laws will address how and when members may be removed for unacceptable or inappropriate conduct. The governing board will meet at least once each month (except during the summer and/or school holidays as deemed appropriate) to hear reports, to consider and adopt policies, to act on committee recommendations, and to consider requests and concerns from parents, students, teachers, and the public.

6. Advisory Bodies. Describe any advisory bodies or councils to be formed, including the roles and duties of that body. Describe the planned composition of the advisory body and the reporting structure as it relates to the governing board and school leadership.

Seven Oaks Classical School's advisory bodies will consist of the board committees developed and approved by the board of directors, which will report to the governing board on a monthly basis. These advisory committees will advise the board of directors, but decisions will be made by the board of directors as a whole. There will be eight advisory committee bodies. These will include the: Executive Committee; Fundraising Committee; Marketing Committee; Finance Committee; Building Committee; Volunteer Committee; Education Committee; and Grievance Committee. Each committee will include one committee chair and two or more volunteer members. See attachment 14 for a complete organizational flow chart.

7. Grievance Process. Explain the process that the school will follow should a parent or student have an objection to a governing board policy or decision, administrative procedure or practice at the school. Describe the types of corporate or school documents that will be available to parents free of charge and how those will be made available.

Seven Oaks Classical School firmly believes that adults must be models of good character even in the most difficult situations. Should a parent have a grievance concerning a particular class or the administration of the school, that grievance should be resolved using the appropriate chain of command. Issues that arise in a particular classroom should always be addressed to the teacher first, since the teacher always has more direct knowledge of the student than anyone else.

The chain of command refers to parents' communication of any kind that seeks or requires an action on the part of the school regarding their students. Seven Oaks Classical School understands that parents will have questions, opinions, and comments that need to be expressed concerning their children's education. Such communications can be very helpful to the successful operation of the school. Seven Oaks' preference is that such communications be expressed initially to the teacher or teachers of the child. If



further communication is warranted, the parent should consult the assistant headmaster or headmaster, depending on whether the matter concerns discipline or academics. If further communications are warranted after seeing the assistant headmaster or headmaster, the parent should go to the grievance committee. The governing board's grievance committee is not the first point of contact and, therefore, will refer all communications that require a response or action to the appropriate individual(s).

Teacher—Parents should schedule a meeting with the teacher through the office. Under no circumstances is it ever acceptable for a parent to confront a teacher about an issue with students present, including his/her own child.

Assistant Headmaster—If the grievance cannot be resolved with the teacher and the matter regards discipline, the parent should schedule a meeting with the assistant headmaster.

Headmaster—If the grievance cannot be resolved with the teacher and the matter regards academics, the parent should schedule a meeting with the headmaster.

Grievance Committee—If the grievance cannot be resolved after talking with the teacher or the appropriate parties, the parent must submit the grievance in writing to the grievance committee.

If a resolution is not achieved by the abovementioned process, two other options are available:

(1) The grievance may be submitted to the governing board in writing. The governing board will review the summary and will make one of the following determinations: (1) The governing board may decide to support the previous decision; (2) The governing board may appoint up to two board members to address the issue; (3) The governing board may address the issue in an open board format; (4) The governing board may address the issue in an executive session, in accordance with the Indiana Open Door Policy I.C. 5-15-1.5.

(2) Parental concerns and grievances may also be raised during the community comments portion of the board of directors meeting. The concern or grievance must be submitted in writing, and no more than three minutes will be granted. Grievances or discussions involving specific personnel will not be entertained during an open board meeting. Concerns or grievances should be addressed in one of the aforementioned steps before using this option.

Grievances regarding policy should be directed to a board member. Grievances regarding an administrator should be directed to the individual first, then in writing to the governing board. The governing board and grievance committee will not entertain anonymous complaints, nor can they hold information in confidence when it is not in the best interest of the school, its staff, or students. If the constituent does not receive satisfaction from the governing board and/or grievance committee, then he must present his case or evidence to Grace College. If satisfaction is not received from Grace College, then the complainant must present his case or evidence to the Indiana Department of Education (511 IAC 7-45-1 of Article 7).

SECTION II: SCHOOL DESIGN

Curriculum and Instructional Design

Provide a framework for the proposed instructional design that reflects the needs of the school's target population and will ensure all students meet or exceed Indiana's Academic Standards as described in IC § 20-31-3. While Indiana's adoption of the Common Core has been paused, please also describe how the proposed instructional design will align with or exceed the Common Core Standards.



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

Seven Oaks Classical School will be a classroom-based learning environment whose curriculum aligns with, and exceeds, both the Common Core and Indiana standards.

Grammar/Logic School Class Size and Structure (Year 1):

Students spend the day with one teacher, excepting enrichment classes and special education taught by specialists.

Grade	Students per Class	Classes per Grade	Students per Grade	Number of teachers	Subject
K	18	3	54	3	
1	18	3	54	3	
2	27	2	54	2	
3	27	2	54	2	
4	27	2	54	2	
5	27	2	54	2	
6	27	2	54	2	
7	27	2	54		
8	27	1	27		
				1	Special Educator
				1	SpEd Para-educator
				1	PE
				2	Music
				2	Art
				2	Foreign Lang.
				1	Literature
				1	History
				1	Mathematics
				1	Science
				1	Latin
				3	K-2 Teaching Assistants
Grammar/Logic School Total			459	33	

Classical Model of Education

Classical education has a history of over 2,500 years in the West. It began in ancient Greece, was adopted wholesale by the Romans, faltered after the fall of Rome, made a slow but steady recovery during the Middle Ages, and was again brought to perfection in the Italian Renaissance. The classical inheritance passed to England and from England to America through colonial settlement. At the time of this nation's founding, classical education was still thriving. Thomas Jefferson heartily recommended Greek and Latin as the languages of study for early adolescence. One of the Founding Fathers' favorite books was Plutarch's *Lives of the Noble Greeks and Romans*. Eighteenth-century Americans venerated and trusted George Washington in large part because he reminded them of the Roman patriot Cincinnatus. So



important has classical education been in the history of the West that it would only be a slight exaggeration to say that the march of civilization has paralleled the vibrancy of classical schools. How, then, can such a long tradition of education seem so novel today, at the beginning of the 21st century?

Classical education, from a research base, is most closely aligned with cognitivist learning theories. These theories postulate that children generate knowledge and meaning through sequential development of their cognitive abilities, such as the mental processes of recognition, recall, analysis, reflection, application, creativity, understanding, and evaluation. The cognitivists' (e.g., Piaget, Bruner, Vygotsky) learning process is adoptive learning of techniques, procedures, organization, and structure to develop internal cognitive structure that strengthens synapses in the brain. The learner requires assistance to develop prior knowledge and integrate new knowledge. The purpose in education is to develop conceptual knowledge, techniques, procedures, and algorithmic problem solving using verbal/linguistic and logical/mathematical intelligences. The learner requires scaffolding to develop schema and adopt knowledge from both people and the environment. The educator's role is pedagogical in that the educator must develop conceptual knowledge by managing the content of learning activities. This theory relates to early stages of learning where the learner solves well-defined problems through a series of stages. These stages, as they apply to classical education, are described below.

Classical education acknowledges the concept of the Trivium, or "three roads," which speaks to the structure of every subject and discipline. The Trivium model describes three stages—grammar, logic, and rhetoric—which follow the developmental growth of children from their ability to memorize information to giving a name to everything in their world to becoming argumentative, looking at the big picture, and expressing thoughts and opinions. "Grammar," the first stage, is defined as the foundation of a subject or the collection of its parts and the mechanics of how they work. In the past, elementary schools were referred to as "grammar" schools; they provided students a foundation in the "basics." The rationale for the grammar stage is there must be an understanding of the facts before students can move to the next stage. During the grammar stage, specific literacy skills such as explicit phonics, grammar, and rules of spelling are intensively taught. Science is based on an understanding of key concepts, as well as learning to use the scientific method as a grammar for scientific thinking. Latin is introduced and taught alongside English so that students learn the structural underpinnings of our language, which expands the student's vocabulary and aids reading comprehension. Oratory skills are taught beginning in kindergarten.

The second stage, "logic," is characterized as the understanding of the parts, their relationship to each other, and the organization of the parts into the whole. In subsequent years, students revisit the data they have learned and begin to develop analytical skills by connecting themes, ideas, and causes. Students at this age want to look at the big picture; they want to know "why?" As they continue to learn facts, they have the intellectual capacity to question those facts. The primary pedagogical style in this stage is logic or dialectic. In this method of instruction, answers are arrived at by the exchange of logical arguments. There is a focus on higher-level thinking and communication skills. This method takes students to the highest level of thinking through examination of pertinent primary-source documents. During this stage, and in the next stage known as "rhetoric," students read great works in the American tradition to better learn about and understand the great ideas, texts, and events of Western civilization.

The last stage of the Trivium, "rhetoric," is the ability to apply the foundational knowledge and logical understanding of a subject, and to solve problems creatively and express opinions. Students learn to read with sophistication and judgment, to attend to details, and to track nuances in both style and argument. They learn to take their time and work carefully and conscientiously. By doing so, students develop habits of mind that are an essential life skill. They are prepared to analyze arguments, present new ideas, and learn to effectively express their ideas — both verbally and in writing — with the individuality and skill students need in college and beyond.



An emphasis on literacy in all areas is the cornerstone of classical education, and classical education will well prepare students for success in advanced study through a systematic approach to training students' minds and character.

Classical education:

- Values knowledge for its own sake,
- Upholds the standards of correctness, logic, beauty, and importance intrinsic to the liberal arts,
- Demands moral virtue of its adherents, and
- Prepares human beings to assume their places as responsible citizens in the political order.

Classical education uses history as its organizing principle. For example, when students study ancient Greece, they concurrently study ancient Grecian art, music, and literature. As students progress through the curriculum, they are able to build from a broader to a deeper understanding of history, work with more sophisticated texts, and develop a clearer concept of how ideas have unfolded over time. This is a marked difference between the curriculum and pedagogy Seven Oaks will use and the current progressive model of student-led learning.

A classical education holds literacy, numeracy, cultural literacy, moral virtue, and tradition at its heart. At its core, classical education is:

- **Systematic:** Adherence to a clear process allows for effective coordination of instructional resources and for measurement of student progress toward goals.
- **Rigorous:** To proceed through stages, students must master the expected material or skills inherent in each stage.

This systematic, rigorous study has two purposes. Rigorous study develops virtue in the student. Aristotle defined virtue as the ability to act in accordance with what one knows to be right. The virtuous man (or woman) can force himself to do what he knows to be right, even when it runs against his inclinations. Classical education continually asks a student to work against his baser inclinations (laziness, or the desire to watch another half hour of TV) in order to reach a goal — mastery of a subject.

Systematic study also allows the student to join what Mortimer Adler calls the “Great Conversation” — the ongoing conversation of great minds down through the ages. Much modern education is so eclectic that the student has little opportunity to make connections between past events and the flood of current information. “The beauty of the classical curriculum,” writes classical schoolmaster David Hicks, “is that it dwells on one problem, one author, or one epoch long enough to allow even the youngest student a chance to exercise his mind in a scholarly way: to make connections and to trace developments, lines of reasoning, patterns of action, recurring symbolisms, plots, and motifs.” (*The Well-Trained Mind: A Guide to Classical Education at Home* by Susan Wise Bauer)

We have all heard the proverb: Give a man a fish and he eats a meal; teach him how to fish and he eats for a lifetime. Classical educators seek to teach students how to learn for themselves. Students who have mastered language, that is, who have mastered grammar and vocabulary, logical reasoning, and persuasive, eloquent speaking and writing—these students have the requisite tools necessary to study and master any subject they choose. We endeavor to ensure they will be ready for college and the rest of their life. Classical education then is a lifelong process of applying the “tools of learning”—tools that are the skills entailed in the rigorous, systematic nature of a classical education program and travel with the student through his various stages of learning.

A classical education, however, is more than simply a rigorous and systematic pattern of learning. Classical education is language-focused; learning is accomplished through words, written and spoken, rather than through images (pictures, videos, and television). This is important because language-learning



and image-learning require very different habits of thought. Language requires the mind to work harder; in reading, the brain is forced to translate a symbol (words on the page) into a concept. Images, such as those on videos and television, allow the mind to be passive. In front of a video screen, the brain can “sit back” and relax; faced with the written page, the mind is required to roll its sleeves up and get back to work.

To the classically educated mind, all knowledge is interrelated. The reading of the *Odyssey*, for example leads the student into the consideration of Greek history, the nature of heroism, and the development of the epic. There is an infinite amount of knowledge in the world, and finding the links between the fields of study can be challenging. A classical education meets this challenge by taking history as its organizing outline—beginning with the ancients and progressing forward to the moderns in history, science, literature, art, and music. This interrelated study of the humanities aligns quite explicitly with the goal of the Common Core and Indiana Standards. From an informational text perspective, building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture. At a curricular or instructional level, texts—within and across grade levels—need to be selected around topics or themes that systematically develop the knowledge base of students. Within a grade level, there should be an adequate number of titles on a single topic that would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. This is an essential component of both classical education and core knowledge.

Finally, the results speak for themselves. Classical education has seen resurgence in the past few years, and the results have been impressive. While there are many factors that contribute to a school’s success, the overwhelming success of classical schools around the country cannot be ignored.

Overview of Curriculum

Seven Oaks Classical School selected the Core Knowledge Sequence, which is based upon E.D. Hirsch’s book *Cultural Literacy*. The Core Knowledge Sequence provides a coherent grade-by-grade sequence of specific topics to be taught in grades K-8. Topics to be taught will include history, geography, literature, visual arts, music, language arts, science, and math. Core Knowledge focuses on specific content and building background knowledge, which is especially beneficial for students with learning challenges and ELLs. The Core Knowledge Sequence provides teachers a specific outline of the skills and content to be learned grade by grade, thereby eliminating the possibility of gaps or repetition and also exposing children to shared knowledge needed to be included in a shared literate culture. Lesson plans and resources are included in this curriculum to guide teachers in instruction.

Riggs Institute’s *The Writing & Spelling Road to Reading & Thinking* incorporates phonics-based spelling and reading. Riggs students learn syllabification, oral vocabulary, and comprehension. Students will also learn spelling, cursive writing, creative writing, spacing, margins, listening skills, vocabulary, grammar, syntax, punctuation, and capitalization. In addition, Riggs uses a complete and comprehensive method to teach language arts skills, including roots, prefixes, suffixes, homophones and homographs, antonyms, synonyms, and graphic organizers.

The Singapore Math program was selected because it is detailed in instruction, questions, problem solving, and visual and hands-on aids (blocks, cards, and bar charts), and ensures that students master the material. Students do not move to the next level until they have mastered the material. The program presents mathematical skill building and problem solving from a conceptual viewpoint, thereby saving instructional time by focusing on mastery of essential math skills that are required to move from one level to the next.



Evidence-Based Support

As did America's founders, Seven Oaks Classical School's founders believe that our free government depends on the wisdom and virtue of the people—on their capacity for self-government—and therefore, education must equip young people with the knowledge and character required for self-government. Seven Oaks' educational philosophy and curricular approach were selected because we believe they produce an academic program that will accomplish that goal. The content-based Core Knowledge Sequence for kindergarten through 8th grade will expose students to a coherent core of challenging, interesting, interwoven knowledge that not only provides a foundation for learning, but also defines a common heritage and establishes a common ground for communication and cooperation in a diverse society, starting at the school itself. The classical, liberal arts hold students to high academic standards and require students to recognize and practice virtuous behavior. Classical education has an impressive history of over 2,500 years in preparing students to become literate, informed, and responsible citizens.

The curricular approach we will use begins with the rudiments of basic literacy and math skills and continues to the higher orders of thought and expression in a coherent and orderly fashion. Seven Oaks Classical School's Core Knowledge, classical, liberal arts curriculum, supplemented by Riggs, Singapore Math, Latin, and a strong emphasis on civics and classical virtues, will provide students a rigorous and comprehensive education that challenges them to excel both in learning and in character. This philosophy and curricular approach will lead to the highest standards of academic and character excellence—the virtues of self-government the American Founders knew our nation depends on.

Below, we detail the reasoning behind our selection of two key methodologies used in the elementary and middle school grades: Riggs' The Writing & Spelling Road to Reading and Thinking and Singapore Math. The Riggs program is a research-based method for teaching all students the "explicit" phonics, reading, and language arts they must learn to succeed. Riggs provides both a strong foundation for students who demonstrate academic progress, and an effective remedial program for preexisting academic problems we anticipate many of our students may have. Riggs is a multisensory, brain-based approach that addresses virtually every student's learning style through four pathways to the brain: sight, sound, voice, and writing. Students see the symbol(s) and hear the teacher say the sound(s); they repeat or say the sound(s) and write the symbol(s) from dictated, oral instructions. The teacher teaches through each student's stronger learning modality (or modalities) while simultaneously remediating their weaker ones. This process accelerates the learning process, avoids discrimination against any student's individual learning style, and provides an optimal learning opportunity for each student. Another key feature of the Riggs method is its use of appropriate sequencing. Riggs begins at the student's speech and oral comprehension levels; it allows students to build one skill upon another, always moving from the known to the unknown. Students are presented with a limited number of concepts — or pieces of information — in a given period of time. They then practice these concepts in a variety of ways until mastery is achieved. This mastery in reading, writing, and spelling will ensure that Seven Oaks' students can excel through the Core Knowledge literature and materials.

The Singapore Math program presents mathematical skill building and problem solving from a conceptual viewpoint and saves instructional time by focusing on mastery of essential math skills, not on reteaching skills that should have been mastered in prior grades. The program's detailed instruction, questions, problem solving, and visual and hands-on aids (blocks, cards, and bar charts) ensure that students master the material. Ideally, students do not move on until they have thoroughly learned a topic. Singapore textbooks are designed to build a deeper understanding of mathematical concepts as opposed to just memorizing definitions and formulas. Singapore Math's placement tests will assist teachers in differentiating the curriculum to meet the needs of all learners to ensure optimal student success. Mathematically competent students will be able to study in higher level classes that challenge their math strengths, while students who need more time to master skills and understand concepts will receive time and assistance at the skill level best suited for their success. Often, English Language Learners lack



adequate reading skills, but Singapore Math's student-friendly, straightforward presentation of essential concepts enables students to obtain necessary math skills.

Support for the Core Knowledge Sequence (K-8)

Students do not learn in the abstract; they must acquire foundational skills and gain knowledge in certain disciplines to participate fully and effectively in the human community. To this end, Seven Oaks Classical School has adopted the Core Knowledge Sequence for its K-8 curriculum. The Core Knowledge Sequence was developed by E.D. Hirsch, Jr. According to Hirsch, people must not only use the same language to communicate effectively and to understand complex ideas, they must possess a reservoir of common facts, ideas, and references known to all in the culture. Abraham Lincoln is an example of a leader who relied on cultural literacy to convey his ideas. He had little formal education, but he read the works of Shakespeare, the fables of Aesop, Euclid's geometry, and the documents of the American Founders. He was able, like few in our history, to express himself forcefully and to articulate the principles of freedom and human dignity in his historic Gettysburg Address. Hirsch stresses that "cultural literacy" is vital to comprehend the vast areas of human knowledge necessary for our political, economic, social, and moral well-being.

Core Knowledge is based on the premise that a grade-by-grade core curriculum of common learning builds a strong and sound education. This coherent sequence is based on the theory that what children can learn is dependent upon what they already know. Identification of the content and skills provides a coherent approach to building knowledge across all grade levels. By following the sequence, every child will learn the fundamentals of science, the basic principles of government, the important events of world and American history, the essential elements of mathematics, the masterpieces of art and music from around the world, and stories and poems passed down from generation to generation. Knowledge, language, and skills build cumulatively from year to year through Core Knowledge's sequential, clear, and specific grade-by-grade outline. Literacy is the goal, and students are provided a strong foundation in reading through the teaching of "explicit" phonics. Beginning in kindergarten, teachers read to their students from the best sources — classical literature. When students are able to read independently, their books are the classics. With this approach, teaching of the virtues is intentional and intertwined with discussions of the classics.

In *A Nation at Risk: 25 Years Later*, published in 2008, Hirsch refers to the severe decline in verbal and math scores and the lack of coherent curriculum in grades K-8 — grades that lay the foundation so necessary for high school success. Students must be well prepared in the elementary grades in order to thrive in the higher grades. Toward that end, Core Knowledge defines the knowledge and skills required for each successive grade level and helps prevent the academic repetition and gaps very evident in schools today.

Support for the Riggs Reading Program

Riggs Institutes' reading program, *The Writing & Spelling Road to Reading & Thinking*, is a brain-based approach with multisensory instruction that addresses all learning styles. Riggs began with Dr. Samuel Orton, a neuroscientist who researched the functioning of the human brain in learning language skills. In collaboration with teachers, he combined his multisensory techniques with classical and Socratic instructional approaches to teaching. Riggs is an "explicit" phonics approach as defined and recommended in a Federal Compilation of Reading Research: *Becoming a Nation of Readers*, 1985. Beyond phonics and for reading, students also learn syllabification, oral vocabulary, and comprehension. For composition, students learn spelling, cursive writing, creative writing, spacing, margins, listening skills, orthography rules, vocabulary, grammar, syntax, punctuation, and capitalization. Riggs uses a complete and comprehensive method to teach language arts skills—roots, prefixes, suffixes, homophones and homographs, antonyms, synonyms, and graphic organizers. They recommend vocabulary-rich literature, such as the classics, and are proponents of high expectations. (Source: The Riggs Institute)



Riggs complies with the research-based requirements in “No Child Left Behind” as it teaches strands in the following areas: Explicit Phonics with dictated Initial Letter Formation, The Alphabetic Principle, Phonemic and Graphemic Awareness, Correct Spelling w/47 Rules, Fluent Oral and Silent Reading, Oral and Print Comprehension, Vocabulary, Pronunciation and Speech, Creative and Organizational Composition, Grammar/Syntax/Punctuation/Capitalization, Analytical and Inferential Thinking, Auditory/Visual/Verbal/Motor Cognitive Development in: Attention, Discrimination, Association, and Memory.

Support for the Singapore Math Method (K-7)

For grades K-7, math will be taught using the Standards edition of Singapore Math. Singapore is the world leader in mathematics achievement, according to a study conducted by the American Institutes for Research and funded by the U.S. Department of Education (“What the United States Can Learn from Singapore’s World-Class Mathematics System”). Singapore students ranked first, while U.S. students ranked 16th in mathematical achievement (Source: April 24, 2011, American Institutes for Research).

The Singapore Primary Mathematics series is time-tested and has a documented history of success. Studies were conducted in 1995, 1999, and 2003 by the International Association for Evaluation of Educational Achievement (Trends in International Mathematics and Science Study), which conducts studies to measure math and science achievement in four-year cycles. Results of these studies showed that Singapore’s 4th and 8th grade students scored the highest in all three years the study was administered.

Singapore Math was developed in 1981 by the Curriculum Planning and Development Institute of Singapore. Educators in the United States began implementing Singapore Math in 2000. Topics are taught to a mastery level with detail and consistency, and the textbooks are designed to build a deeper understanding of mathematical concepts as opposed to just definitions and formulas. Professional development accompanies Singapore programs so teachers are better prepared to facilitate lessons. Singapore Math has a consistent emphasis on problem solving and model drawing, with a focus on in-depth understanding of the essential math skills recommended in the National Council of Teachers of Mathematics Curriculum Focal Points, the National Mathematics Advisory Panel, and the proposed Common Core State Standards. (Source: <http://www.singaporemath.com> - Singapore Math Method)

Singapore Math understands that there are multiple learning styles and that ELL students will benefit from the program’s clear and simple explanations of math concepts. With fewer topics and more time to thoroughly learn those topics, the program’s detailed instruction, questions, problem solving, and visual and hands-on aids (blocks, cards, and bar charts) ensure that students master the material. Students do not move on until they have mastered the material and are prepared to build upon their knowledge. Students using Singapore Math learn math concepts thoroughly, but they also master essential math skills more quickly, and it has been reported that by the end of sixth grade, students have mastered multiplication and division of fractions and are able to complete difficult multistep word problems comfortably, ensuring they are well prepared to complete Algebra 1 in middle school. (Source: John Hoven and Barry Garelick, “Singapore Math: Simple or Complex?” *Educational Leadership* 65:3, November 2007)

Support for Emphasizing Civics

Classical education has always been concerned with the political order. Looking back, Greek education was political—geared toward preparing youth for citizenship. As did the leaders of the ancient republics, America’s Founding Fathers realized that a free government depends upon the wisdom and virtue of its citizens—their capacity for self-government. It was their hope that schools would prepare young people to preserve the constitutional republic they created. In recent years, political knowledge has declined. According to a 2008 study conducted by the Intercollegiate Studies Institute (ISI) American Civic



Literacy Program, 2,508 Americans were surveyed to determine their knowledge of America's founding principles and texts, core history, and enduring institutions. The results showed that over 70% of those surveyed failed a basic test of civic information. Less than half of the participants could name all three branches of government, and only half could articulate a basic description of a free-enterprise system. Thirty percent of elected officials do not know that "life, liberty, and the pursuit of happiness" are the inalienable rights referred to in the Declaration of Independence. (Source: Americancivilliteracy.org/2008/summary) Classical liberal arts educators contend that by providing a curriculum with a strong history and civics component, the decline in political knowledge can be reversed. In the classical, liberal arts model, primary source documents are used to teach history, with an emphasis on American history and America's founding principles.

Support for Incorporating Primary Source Documents

The use of primary sources exposes students to important historical concepts. First, students become aware that all written history reflects an author's interpretation of past events. Therefore, as students read a historical account, they can recognize its subjective nature. Second, through primary sources the students directly touch the lives of people in the past. Further, as students use primary sources, they develop important analytical skills. For many students, history is seen as a series of facts, dates, and events usually packaged as a textbook. The use of primary sources can change this view. As students use primary sources, they begin to view their textbook as only one historical interpretation and its author as an interpreter of evidence, not as a purveyor of truth. Primary sources force students to realize that any account of an event, no matter how impartially presented it appears to be, is essentially subjective. Primary sources fascinate students because they are real and they are personal; history is humanized through them. Using original sources, students touch the lives of the people about whom history is written. They participate in human emotions and in the values and attitudes of the past. By reading a series of public opinion surveys from World War II, for example, students confront the language of the person interviewed and his or her fears about shortages, as well as the interviewer's reactions recorded after the interview.

These human expressions provide history with color and excitement and link students directly to its cast of characters. Interpreting historical sources helps students to analyze and evaluate contemporary sources—newspaper reports, television and radio programs, and advertising. By using primary sources, students learn to recognize how a point of view and bias affect evidence, what contradictions and other limitations exist within a given source, and to what extent sources are reliable. Essential among these skills is the ability to understand and make appropriate use of many sources of information. Development of these skills is important not only to historical research but also to a citizenship where people are able to evaluate the information needed to maintain a free society. Perhaps best of all, by using primary sources, students will participate in the process of history. They will discuss with teachers and classmates the interpretation of the sources. They will challenge others' conclusions and seek out evidence to support their own. The classroom will come alive as students test and apply important analytical skills (Source: History in the Raw. The U.S. National Archives and Records Administration. <http://www.archives.gov/education/history-in-the-raw.html>).

Support for Teaching the Virtues

As did the leaders of the ancient republics, America's Founders knew that the maintenance and prosperity of a free republic—the security and happiness of a free people—depends upon the character or virtue of its citizens. They also understood that virtue or character is only "the result of habit and long training." (Thomas Jefferson to Edward Everett, March 27, 1824) Youth become virtuous only by learning, observing, and practicing the virtues. Therefore, instruction in the virtues is an essential part of education. Classical education encourages this training in the virtues and the attainment of good character.



Through the decorum of the classrooms and halls, the reading of great works in literature and history, and the invitation to polite discussion about heroes and heroines, students analyze, grapple with, and contemplate important moral and intellectual questions. They learn to evaluate situations with sound judgment, recognize good behavior, and make personal decisions that embody and emulate virtue. When teachers model excellence and have high expectations of students' behavior, students will rise to the occasion.

Ensuring Highly Effective Teachers

In order to ensure the rigorous intellectual and character formation of Seven Oaks Classical School students, only teachers who meet the following, but not limited to criteria will be considered for hire:

- Candidates must have successfully completed a rigorous course of studies at a four-year college or university, as evidenced by the list of courses and grades on the college transcript.
- Candidates for middle school teaching positions must have majored in the subjects they wish to teach, or have equivalent experience and knowledge.
- Candidates must be knowledgeable or willing to learn about the classical method of education.

All teachers will undergo continual in-house development in classical methods and content, as well as further study in their individual fields of expertise. This continuing education will benefit students in two ways: the teachers become better at their vocation, and they model for the students the value of lifelong learning and personal development.

2. Specify instructional strategies that your school will implement to support the education plan and why they are well-suited for your targeted student population. Describe the methods and systems that teachers will use to provide differentiated instruction to meet the needs of all students.

Multisensory approach to teaching reading and written language. The Riggs program is based upon visual, auditory, and kinesthetic approaches. For example, when students are learning letters and sounds, they will see the symbol(s) and hear the teacher say the sound(s); they repeat or say the sound(s) and write the symbol(s) from dictated, oral instructions. Students also learn syllabification, oral vocabulary, and comprehension. The written language component aligns with the reading component as students learn spelling, cursive writing, creative writing, spacing, margins, orthography rules, vocabulary grammar, syntax, punctuation, and capitalization. Riggs is a comprehensive program where reading and written language are taught in ways that reinforce each other. This program emphasizes strategies that are very effective with all students, including students experiencing learning difficulties. Riggs is based upon a model developed by Samuel Orton (Orton-Gillingham) to teach students with dyslexia and other reading disabilities, and teaches both skills in a comprehensive and integrated manner so that reading and written language skills are being reinforced.

Providing a curriculum that is sequential. The Core Knowledge Sequence presents a grade-by-grade specification of topics that are built upon prior knowledge, or what students already know. It is a sequential building of skills and knowledge that is clearly defined. For example, a state standard might state the following as a unit objective: *United States: Understand connections among historical events, people, and symbols significant to United States history and cultures. Describe local events and their connections to national history.* It does not identify which events, which people, or which symbols. By contrast, the Core Knowledge Sequence specifies all the important components that address "What do our children need to know?" By utilizing a sequential method of delivering instruction, gaps will be less likely to occur, and there will more likely be a commonality and consistency in what students are learning from grade to grade. Again, within the traditional school systems, while classrooms may follow curriculum maps based upon the standards, there can easily be gaps between what teachers are teaching and in what order. In addition, there is a tendency to teach what will be tested on the Standard Based Assessments, which results in important topics being left out. What is being taught to students can be



unclear and confusing to parents. Core Knowledge supplies the specificity of what should be taught, and all teachers follow a horizontal and vertical alignment of these specific topics.

Teacher-Centered Instruction. A teacher-centered approach consists of structured, guided, and independent practices. Ideas and practices are introduced in an order carefully developed to avoid confusion and to facilitate generalization. All skills are taught so that nothing is “left to chance.” A teacher-driven approach is used to help students gain the basic reading, writing, and math skills they will need before proceeding to the more advanced curriculum. Students remain focused and are more able to stay on task. With a teacher-centered, knowledge-driven approach, we will expect to see results similar to those where direct instruction is used. A review of 37 studies of direct instruction reflected that direct-instruction students scored at the 81st percentile on end-of-unit exams (George Adams and Sigfried Engelman, 1996). In more recent studies done in urban schools that had high percentages of minority and low socioeconomic students, the percentage of students reading below grade level declined, while that of students reading above grade level increased. Similar results occurred in math. The largest gains, however, were with the limited-English proficient learners (Source: *Psychology Applied to Teaching*, Snowman/Biehler, 11th Edition, 2006).

Socratic Method/Seminar. Students will deepen their understandings, solidify their knowledge, and reflect on their learning experiences, thereby developing critical thinking skills. An example would be to give the students a primary source document to read and have them come together after reading the text to share their thoughts and opinions. Students need to be able to reflect and talk about their learning experiences so that the learning becomes more engaging and meaningful. Learning to communicate respectfully and effectively in school will have positive implications for their lives outside of school as they are being exposed to learning lifelong skills.

Learning Strategies. Strategies such as memory-directed tactics help produce accurate storage and retrieval of information. Examples include the use of mnemonic devices (HOMES or rhymes such as “30 days hath September...”) and comprehension-directed tactics that aid in the understanding of the meaning of ideas and their interrelationships (e.g., teaching students to formulate questions or how to take notes). All students can learn more effectively and become independent learners if they learn how to organize, store, and retrieve information.

Scaffolded Learning. The purpose of scaffolding instruction is to provide teacher support to students who are having difficulty learning a new concept/skill. An example is that a teacher may demonstrate or model a concept/skill to a student in addition to just giving verbal or visual instructions. Core Knowledge, Riggs (explicit phonics), and Singapore Math were selected because these programs are designed to build foundations of knowledge in the elementary years. Because children learn by building on what they already know, this curriculum will benefit students with varying learning abilities. Emphasizing foundational skills and rich content, teachers can not only effectively bring students with academic problems up to grade level but also strengthen the knowledge base and challenge the academic potential of every student at grade level.

English Language Learners (ELL) will benefit from Singapore Math’s clear and simple explanations of math concepts as well as the program’s detailed instruction, questions, problem solving, and visual and hands-on aids (blocks, cards, and bar charts). Students cannot move on to the next level until they master the material. A strong math foundation early on ensures students will be successful later.

The time-tested, multisensory, brain-based approach that addresses virtually every student’s learning style is the Riggs method (*The Writing & Spelling Road to Reading & Thinking*). Riggs is appropriate for teaching all students the explicit phonics, reading, and language arts they must learn in order to succeed. Riggs provides a strong foundation for students who exhibit academic progress and will be an effective



remedial program for students with academic challenges. Identifying students who need academic assistance is an ongoing process, and the objective at Seven Oaks Classical School will be to maintain the rigorous curriculum designed for each grade but modify methods and practices to ensure all students are achieving at grade level. ELL students will also benefit, because Riggs provides limited concepts at a given time and is practiced until students achieve mastery. We believe one of the best forms of remediation is through a solid phonics program.

See Attachment 8 for the core curriculum scope and sequence by subject, for each grade level proposed.

Pupil Performance Standards

1. Provide, in Attachment 9, the school's exit standards for graduating students for each division of the school as applicable (elementary, middle and/or high school). Exit standards should clearly set forth what students in the last grade in each division will know and be able to do.

See Attachment 9 for the school's exit standards for graduating students for each division of the school.

2. Explain the school's policies and standards for promoting students from one grade to the next. How and when will promotion and graduation criteria be communicated to parents and students?

A student may be promoted on the basis of academic achievement and/or demonstrated proficiency in the subject matter of each grade level. To earn credit in a course, a student must receive a grade of at least 70 percent and must successfully complete all assigned coursework. In addition, at certain grade levels, a student—with limited exceptions—will be required to pass the state-mandated assessment tests.

Promotion criteria will be explained to parents at the orientation meeting as well as in the student/parent handbook distributed to all families at the beginning of the school year. Academic achievement and promotion will be reported to parents via report cards, which will be disseminated every six weeks. The final report card of the academic year will notify parents that their students have been promoted to the next grade level.

High School Graduation Requirements

1. Explain how the school will meet these requirements. Explain how students will earn credit hours, how grade-point averages will be calculated, what information will be on transcripts, and what elective courses will be offered. If graduation requirements for the school will exceed those required by the State of Indiana, explain any additional requirements.

Grade-level advancement for students in grades 9-12 shall be earned by course credits. In order to advance from grade 9 to grade 10, a student must have earned a minimum of twelve (12) credits. A minimum of twenty-four (24) credits is required to reach grade 11, and at least thirty-six (36) credits must be earned for a student to be assigned to grade 12. To graduate, students must complete forty-eight (48) credits in accordance with specific course requirements. Although students may meet the credit requirements for graduation prior to the last semester of their senior year, they will still be required to take a full course load of seven periods each day. Students at Seven Oaks Classical School will not be eligible for early release. Because students and parents will incur graduation expenses such as the purchase of invitations, senior rings, cap and gowns, and senior pictures, both students and parents should monitor progress toward completion of all requirements for graduation. See Attachment 9 for a complete table of required credits for graduation and specific course requirements.

2. Explain how your graduation requirements will ensure student readiness for college or other postsecondary opportunities (trade school, military service, or entering the workforce).

The rigorous academic program, along with the character formation taught through virtue study and literature, will endow Seven Oaks Classical School students with the following characteristics that will enable them to succeed in whatever course of life they choose after high school.



Analytical Thinking: Both the study of such logical subjects as math and Latin and the Socratic Method will help students to think carefully and reasonably to solve problems.

Clear Communication: The study of rhetoric and the constant exposure to complex language and well-organized writing will prepare students to become precise in their use of words, to organize their thoughts carefully, and to tailor their speech to an intended audience.

Self-discipline and a Strong Work Ethic: Classical education requires a diligent work ethic. A student formed in this environment has learned the requirements of success—self-restraint and hard work.

Responsibility: Seven Oaks Classical School high-school students will not be protected from the consequences of their actions. They will be required to actively strive for knowledge. Remembering assignments and long-term projects will be their responsibility. They will be given the option of failing if they do not fulfill their duties. This is great preparation for adult life.

The rigorous academic program, along with the character formation taught through virtue study and literature, will endow Seven Oaks Classical School students with the following characteristics that will enable them to succeed in whatever course of life they choose after high school.

3. Explain what systems and structures the school will implement for students at risk of dropping out of high school and/or not meeting the proposed graduation requirements.

At Seven Oaks Classical School, parents will be notified at the first sign of a problem with their student's academic work. By addressing the problem early, parents and teachers can work together to solve students' problems and return them to a successful learning environment. Teachers who have concerns about a student will contact parents by phone or email and will set up a meeting. In addition, parents will have online access to student assignment completion records and grades.

School Calendar and Schedule

1. Provide, in Attachment 10, the school's proposed calendar for the first year of operation, as well as the weekly schedule of classes. Provide an overview of academic and non-academic programs, as well as the total number of instructional days in an academic year. Note the length of the school day, including start and dismissal times. Detail the number of instructional hours/minutes in the day for core subjects such as language arts, mathematics, science, and social studies.

See Attachment 10 for the school's proposed calendar for the first year of operation, as well as the weekly schedule of classes.

School Culture

1. Describe the culture of the proposed school and how this culture will promote a positive academic environment and reinforce student intellectual and social development.

Seven Oaks promotes a school culture that demands moral virtue, decorum, respect, discipline, and studiousness among the students and faculty. Parents are searching for a culture that is noble and rich. Because the broad social culture in our country is increasingly coarse, parents are intent on finding the right school, with an increasing eye for counter culture. Seven Oaks Classical School will resonate with these parents because the faculty will invite the students into their culture, into their habitual vision of human greatness, as expressed by all good things accomplished by the human spirit.

The study of virtues and the great heroes of the past and present will help students to desire that same sort of character. Teachers will model what it is to be a responsible and compassionate person who is eager to learn more about the riches of human culture and the natural world. School uniforms and an absence of personal electronic devices will enable students to focus on their studies. The visual culture of the school will reflect the beauty and wonder of what the students are learning.



The role of discipline at Seven Oaks Classical School will be to create an environment where teaching and learning take place productively. Respect will be given to teachers and individual students, as well as to all institutional and private property. All members of the community should be allowed to pursue learning without distraction. Discipline at Seven Oaks Classical School ought always to uphold the school's mission statement, and Seven Oaks understands that the good behavior of students in school promotes their education on campus. Students will be expected to adhere to the general rules of the school as well as those rules established by each teacher within his or her classroom.

2. Explain how you will implement this culture for students, teachers, administrators, and parents starting from the first day of school.

Both parents and students will attend an orientation meeting in which they will both hear a presentation about and receive a handbook outlining the goals and methods of classical education as implemented at Seven Oaks and the behavior expected of students toward their peers and teachers.

Once school begins, both the school uniform and the behavioral requirements will be strictly enforced. Discipline is more easily upheld than regained. Above all, misbehaving students will not be allowed to keep other students from learning.

Teachers will be trained in enforcing standards of dress and conduct. There will be consistent enforcement among all staff. Teachers will model the desired behavior, will dress respectfully, and will maintain formality with their colleagues in the presence of students.

3. Summarize, for illustrative purposes, a typical day from the perspective of a student in a grade level of your choice.

A first grade student at Seven Oaks Classical School might have the following schedule on a given day:

7:45-8:00am	Students arrive and prepare for the school day
8:00-8:20am	Students participate in a flag ceremony and recitation in their classroom.
8:20-8:50am	Language Arts: In small reading groups, the students take turns reading a book from the Little Bear series.
8:50-9:30am	Phonics: Students learn new digraphs, practice spelling words, and learn a new letter.
9:30-9:50am	Language Arts: Students enjoy listening to a read-aloud book such as <i>Make Way for Ducklings</i> .
9:50-10:10am	Students play outside or in the gym, as the weather dictates.
10:10-11am	Mathematics: Students learn all of the number facts for subtracting from seven.
11-11:10am	Break
11:10-11:50am	Science: Students learn about the parts of plants and how plants grow.
11:50am-12:30pm	Lunch and recess.
12:30-1pm	Students hear an Aesop's Fable and participate in Socratic discussion.
1-1:10pm	Break and walk to specials.
1:10-1:50pm	Music: Students learn about the major categories of musical instruments (percussion, wind, stringed) that were represented in Ancient Egypt.*
1:50-2:30pm	Latin: Students learn first declension noun endings through song and games.*
2:30-2:50pm	Students play outside or in the gym, as the weather dictates.
2:50-3:30pm	History: Students learn about ancient Egypt and locate Egypt and the Nile River on a map.

*on alternating days students will participate in foreign language and physical education.



4. Summarize, for illustrative purposes, a typical day from the perspective of a teacher of any subject or grade of your choice.

The 6th grade teacher is responsible for all subjects except for specials such as art, music, some foreign language, and P.E. The specials periods serve as preparation periods for the classroom teacher. The following is a typical daily schedule along with a sample of what might be taught in each subject on a given day.

7:25-7:45am	Planning and Preparation	
7:45-8:00am	Students begin to arrive	
8:00-8:20am	Recitation (20 min.)	Reviewing the highlights from the past weeks' lessons.
8:20-9:10am	Writing/Grammar (50 min.)	Paraphrasing information from a source. Review of the four types of sentences.
9:10-10:00am	Specials (50 min.)	Planning period or professional development time with a master teacher.
10:00-10:50am	Math (50 min.)	Converting fractions into decimals.
10:50-11:20am	Latin (30 min.)	Grammar recitation and vocabulary quiz; 4 th conjugation present system verbs.
11:20-12:10pm	Specials (50 min.)	Planning period.
12:10-1:00pm	Lunch break and recess duty (50 min.)	
1:00-1:50pm	Literature (50 min.)	Reading and discussion of the Greek myth "Narcissus and Echo."
1:50-2:40pm	Science (50 min.)	Layered structure of the earth and the concept of plate tectonics.
2:40-3:20pm	History/Geography (40 min.)	Athens at the time of Socrates; important geographical features of Greece.
3:20-3:30pm	Prepare students for departure	
3:30-4:00pm	Teacher planning, faculty meetings, professional development opportunities	

Supplemental Programming

1. Will you offer summer school? If so, describe the program(s) to be offered. How many students are expected to attend summer school, and how will they be selected for participation? How many hours and weeks of summer school will you provide, and how will it be funded?

At this time, Seven Oaks Classical School will not offer a summer school program.

2. Describe the extra- or co-curricular activities or programming the school will offer; how often they will occur; and how they will be funded.

For any and all extra- or co-curricular programs, Seven Oaks will choose these programs and activities through the lens of our mission. Clubs or groups that do not fit with the mission of the school will not be implemented. With this in mind, Seven Oaks Classical School is considering the possibility of a cross country, volleyball, or basketball team by the second year of operation. Obviously, facilities will play a large role in which sports we are able to offer in the early years of operation. According to the ISHAA by-laws:

Rule 12-4 Enrollment in an Innovative School

If a student is Enrolled in and attends, Full-time, an Innovative School, the student may have eligibility to participate in the athletic program at the Indiana Public School serving the student's residence, provided that:

- (1.) Prior to participation, the Public School serving the student's residence accepts the student in its athletic program;
- (2.) the student in conjunction with the Innovative School and the Public School serving the student's residence, provide proof to the IHSAA that the spirit of the eligibility rules



will not be compromised; and

(3.) The student adheres to all IHSA standards for eligibility at the Innovative School, including, but not limited to, academic standards, behavioral expectations and attendance requirements. (<http://www.ihsaa.org/Portals/0/ihsaa/documents/about%20ihsaa/2014-15%20By%20Laws.pdf>, Page 44)

All extra-curricular activities will occur outside of the academic school day and during the corresponding sports season.

Seven Oaks Classical School may also have various clubs or organizations available to students based on student and staff interests. These may include, but not be limited to, robotics, rocket club, Boy Scouts, Girl Scouts, Chess Club, Math Olympiad Team, school science fair, school spelling bee, and so on. These programs will be funded through boosters, donations, and fundraising. Volunteers will head these extracurricular activities.

3. Describe the school's programs or strategies to address student mental, emotional, and social development and health.

Seven Oaks advocates the teaching of the classical virtues using traditional methods. Only through teaching and practicing the virtues of responsibility, respect, perseverance, cooperation, courage, honesty, integrity, and citizenship do we prepare our children for a life well lived. We agree with Aristotle's dictum that one becomes virtuous by practicing the virtues. To this end, teaching the Eight Pillars of Character will address student mental, emotional, and social development and health. Should the need arise outside of the character education, the headmaster and/or assistant headmaster will assist the parents or legal guardians in seeking appropriate services for troubled students.

4. If applicable, describe any other student-focused activities and programs that are integral to your educational and student-development plans.

Other student-focused activities may include Student Council. This council may help with any social or spirit activities, such as dances or student activities, including fundraising events to defray the costs of such events.

Special Populations and At-Risk Students

1. Summarize the school's overall plan to serve students with special needs, including but not limited to those with Individualized Education Programs, students with Section 504 plans, English Language Learners, students identified as intellectually gifted, and students at risk of academic failure or dropping out. Identify the special populations and at-risk groups that the school expects to serve, whether through deliberate targeting or otherwise.

Seven Oaks is committed to providing high-quality instruction and appropriate supplemental services to students with Individualized Education Programs, students with Section 504 plans, English Language Learners, and students at risk of academic failure or dropping out. Accordingly, Seven Oaks will implement a comprehensive assessment to identify any students with these needs and serve them appropriately.

2. Explain how the school will identify and meet the learning needs of students with mild, moderate, and severe disabilities in the least restrictive environment possible. Specify the programs, strategies and supports you will provide for students with mild, moderate, and severe disabilities, including:

Seven Oaks' commitment to students with special needs will accordingly be addressed by the implementation of a comprehensive assessment to identify any students with disabilities. For those identified for additional intervention, an Individualized Education Program (IEP) will be developed to oversee services. The IEP (34 CFR §300.320-300-324) will include the following:



- i. A statement of the child's present levels of educational performance and how the child's disability affects the child's involvement and progress in the general curriculum;
- ii. A statement of measurable annual goals, including benchmarks or short-term objectives;
- iii. A statement of the special education and related services and supplementary aids and services to be provided to the child;
- iv. An explanation of the extent, if any, to which the child will not participate with non-disabled children in the regular class and in other activities;
- v. A statement of any individual modifications in the administrations of State or district-wide assessments of student achievement that are needed in order for the child to participate in the assessment;
- vi. The projected date for the beginning of the services and modifications identified and the anticipated frequency, location, and duration of those services and modifications; and
- vii. A statement of how progress toward annual goals will be measured and how the parents will be regularly informed, at least as often as parents of the non-disabled students, of their child's progress toward the annual goals and the extent to which that progress is sufficient to enable the child to achieve the goals by the end of the year.

Seven Oaks will provide special-education and related services to any child with a disability in accordance with the child's IEP and will make a good-faith effort to assist the child to achieve the goals and objectives or benchmarks listed in the IEP. Review of the IEP will occur annually or more frequently if the student is not succeeding. In addition, Extended School Year services (ESY) (34 CFR §300.106) will be provided to the child with a disability beyond the regular school year, as necessary in order to provide Free Appropriate Public Education (FAPE) as determined by a child's IEP.

a. How the school will identify students with special education needs.

In accordance with 34 CFR §300.301-300.311, the referral of students for a full and individual initial evaluation for possible special education services will be a component of Seven Oaks' overall general education Response to Intervention (RTI) system. Prior to referral, students experiencing difficulty in the general classroom are considered for all support services available to all students, such as tutorial, remedial, compensatory, and other services. If the student continues to experience difficulty in the general classroom after the provision of interventions, school personnel will document the provision of interventions and refer the student for a full and individual initial evaluation.

Seven Oaks will ensure that a full and individual evaluation is conducted for each student being considered for special education and related services. The evaluation will be completed before the initial provision of special education and related services will be provided and will address whether the student is a "student with a disability" in accordance with federal and state requirements and the educational needs of the student.

Based on the requirements of 34 CFR §300.232, Seven Oaks will have an IEP in effect for each identified student with a disability. Seven Oaks will ensure that the IEP is in effect before special education and related services are provided to an eligible child and that the IEP will be implemented as soon as possible following the IEP committee meeting.

For a student who is new to Seven Oaks, a Transfer IEP committee will meet prior to or upon the student's enrollment. In this case, the parents must verify that the student was receiving special education services in the previous school district or the previous school district must verify in writing or by telephone that the student was receiving special education services. A second IEP committee meeting must be held within 30 school days from the date of the first IEP committee meeting to finalize or develop an IEP based on current information.



b. The specific, evidence-based instructional programs, practices, and strategies the school will employ to provide a continuum of services, ensure students' access to the general education curriculum, and ensure academic success for students with special education needs.

Inclusion, differentiated instruction, and interactive technology strategies will be implemented as appropriate for students identified with disabilities. Differentiated instruction applies an approach to teaching and learning that gives students multiple options for taking in information and making sense of ideas. This can be done for the special needs learner with or without technology. Differentiated instruction lends itself to the inclusion of all students into the general education classroom, allowing teachers to meet students where they are in order to help them achieve the highest possible standards.

Seven Oaks will assure that students with disabilities are educated with non-disabled students to the maximum extent appropriate to meet the student's IEP and overall educational needs (34 CFR §300.114-330.116). In providing programs, services, and activities for students with disabilities, Seven Oaks shall first consider the least restrictive environment of the general education program. Special classes, separate schooling, or other removal of students with disabilities from the general education environment will occur only when the nature and severity of the disability is such that education in general classes, with the use of supplementary aids and services, cannot be achieved satisfactorily. Seven Oaks will provide a FAPE for students with disabilities in order to meet the need for special education and related services (34 CFR §300.115). This includes a variety of placements and will make provision for supplementary services to be provided in conjunction with general education classroom placement.

Students with disabilities will have available to them the variety of educational programs and services available to students without disabilities, accessible facilities, and the same instructional regular school day as is provided to all other students. In addition, Seven Oaks will ensure that each child with a disability participates with non-disabled students in non-academic and extracurricular services and activities, including meals, recess periods, and the services and activities set forth in 34 CFR §300.320.

c. How the school will regularly evaluate and monitor the progress and success of special education students with mild, moderate, and severe needs to ensure the attainment of each student's goals set forth in the Individualized Education Program (IEP).

In both the development and review (and revision as appropriate) of a child's IEP, the IEP team will consider the strengths of the student and the concerns of the parents for enhancing the education of their child, the results of the initial or most recent evaluation of the child, and, if appropriate, the results of the student's performance on any state or district-wide assessment that has been administered. In addition, the IEP team will also consider special factors such as:

- whether a child's behavior impedes his or her learning or the learning of others,
- whether a student is limited English proficient and the language needs of the child as those needs relate to the child's IEP, and
- what the communication needs of the student are and whether the child needs assistive technology devices/services.

Review of the IEP will occur annually or more frequently if the student is not being successful.

d. If applicable, the school's plan for promoting graduation for students with special education needs.

Upon the recommendation of the IEP team, a student with disabilities who is receiving special education services may be permitted to graduate under the provisions of his or her IEP. A student who receives special education services and has completed four years of high school, but has not met the requirements of his or her IEP, may participate in graduation ceremonies and receive a Certificate of Attendance. Even if the student participates in graduation ceremonies to receive the Certificate of Attendance, he or she may



remain enrolled to completed the IEP and earn his or her high school diploma. However, the student will only be allowed to participate in one graduation ceremony.

e. How the school will provide qualified staffing for students with special education needs.

All special education personnel shall be certified, endorsed, or licensed in the area or areas of assignment in accordance with 34 CFR §300.156 or appropriate state agency credentials. Seven Oaks will employ, minimally, one certified special education teacher. Additional special education personnel (e.g., teachers, paraprofessionals, and related service providers) will either be employed or contracted with depending on students' needs at the school. Using a multi-certified and multi-strength staff will provide students at Seven Oaks with tailor-made support services to meet each individual need.

3. Explain how the school will meet the needs of English Language Learner (ELL) students, including:

a. How the school will identify ELL students.

The School will administer a home language survey to identify the first/native language(s) of all students enrolled in the school. This home language survey will be administered to ALL students enrolled in the school, and the survey will be used during the enrollment process to identify the native language of each new student at the time of enrollment into the school. Documentation of a student's native language will be recorded in the permanent record. Seven Oaks will implement an identification procedure to survey all students in the school with the following three questions:

- i. What is the native language of the student?
- ii. What language(s) is (are) spoken most often by the student?
- iii. What language(s) is (are) spoken by the student in the home?

b. The specific instructional programs, practices and strategies the school will employ to ensure academic success and equitable access to the core academic program for these students.

Seven Oaks will provide equal educational opportunity to language minority students with the appropriate level of English language development to allow for meaningful participation of language minority students in the school's educational programs. Such instruction will take place during the regular school day. A minimum of one (1) hour daily will be appropriate for LEP students at English proficiency levels 1-4.

After a determination of needs based on the student population, one of the following approaches to instruction may be used:

- i. Transitional Bilingual Education (TBE): TBE is an instructional program in which subjects are taught through two languages—English and the native language of the English language learners—and English is taught as a second language. English language skills, grade promotion, and graduation requirements will be emphasized, and the student's native language will be used as a tool to learn content. The primary purpose of these programs is to facilitate the LEP student's transition to an all-English instructional environment while receiving academic subject instruction in the native language to the extent necessary. As proficiency in English increases, instruction through the student's native language decreases. Transitional bilingual education programs vary in the amount of native language instruction provided and in the duration of the program. TBE programs may be early-exit or late-exit, depending on the amount of time a child may spend in the program.
- ii. English as a Second Language (ESL): ESL is an educational approach in which English language learners are instructed in the use of the English language. Their instruction is based on a special curriculum that typically involves little or no use of the native language, focuses on language (as opposed to content), and is usually taught during specific school periods. For the rest of the



- school day, students may be placed in mainstream classrooms, an immersion program, or a bilingual education program. Every bilingual education program has an ESL component.
- iii. Pull-Out ESL: A program in which LEP students are “pulled out” of the regular, mainstream classrooms for special instruction in English as a second language.
 - iv. Content-Based ESL: This approach to teaching ESL makes use of instructional materials, learning tasks, and classroom techniques from academic content areas as the vehicle for developing language, content, cognitive, and study skills. English will be used as the medium of instruction.
 - v. Structured Immersion: In this program, language minority students receive all of their subject matter instruction in their second language. The teacher uses a simplified form of the second language. Students may use their native language in class; however, the teacher uses only the second language. The goal is to help minority language students acquire proficiency in English while at the same time achieving in content areas.

c. How the school will assess and monitor the progress and success of ELL students, including exiting students from ELL services.

As required by the “No Child Left Behind Act,” Seven Oaks will assess all students whose first language is other than English to determine whether a student is Fluent English Proficient (FEP, see level 5) or Limited-English Proficient (LEP, see levels 1-4). Each spring, all LEP students must participate in the LAS Links English proficiency assessment. Newly enrolling students must be assessed for identification as LEP using the LAS Links Placement Test within thirty calendar days of enrollment at the beginning of the school year or within two weeks during the school year.

Assessment shall, to the extent possible, include listening, speaking, reading, and writing abilities, as well as academic achievement. Language proficiency levels are described below:

- i. **Beginner (Level 1)**: Students performing at this level of English language proficiency begin to demonstrate receptive or productive English skills. They are able to respond to some simple communication tasks.
- ii. **Early Intermediate (Level 2)**: Students performing at this level of English language proficiency respond with increasing ease to more varied communication tasks.
- iii. **Intermediate (Level 3)**: Students performing at this level of English language proficiency tailor the English language skills they have been taught to meet their immediate communication and learning needs. They are able to understand and be understood in many basic social situations (while exhibiting many errors of convention) and need support in academic language.
- iv. **Advanced (Level 4)**: Students performing at this level of English language proficiency combine the elements of the English language in complex, cognitively demanding situations and are able to use English as a means for learning in other academic areas, although some minor errors of convention are still evident.
- v. **Fluent English Proficient (Level 5)**: Students performing at this level of English language proficiency communicate effectively with various audiences on a wide range of familiar and new topics to meet social and academic demands. Students speak, understand, read, write, and comprehend in English without difficulty and display academic achievement comparable to native English-speaking peers. In order to attain the English proficiency level of their native English-speaking peers, further linguistic enhancement and refinement are necessary.

NOTE: Oral language skills will not be the sole criterion for determining language proficiency. Academic achievement and writing and reading abilities in English must also be considered as assessed with the LAS Links English proficiency assessment.



Seven Oaks will have specific criteria established to ensure appropriate placement and subsequent delivery of services to exceptional language-minority students. The Pre-Referral process to Special Education should include an assessment in the native language and in English to provide evidence that difficulty exists in both languages. A referral should be made only after all other avenues have been explored and it has been determined that the child's needs cannot be met by the regular education program.

Retention of language minority students will not be based solely upon English language proficiency. Appropriate classroom modifications should be made for each language-minority student to ensure meaningful participation in the educational program.

Seven Oaks will continue to provide English language development services to LEP students until they attain an Overall/Composite score of Level 5 on the summative LAS Links English proficiency assessment. Services for Level 4 students may be modified based on the students' needs.

Upon the first Overall/Composite score of Level 5, students are exited from daily English language development services and reclassified as FEP for reporting purposes and they begin informal monitoring. At this point students no longer generate funding. The following Spring, upon the attainment of the second Overall/Composite score of Level 5 on LAS Links, students enter the formal two-year monitoring period required by Title III to ensure continued academic success. After the second score of Level 5, students will no longer participate in LAS Links.

Seven Oaks will provide evidence that communication between the school and the home, whether about language-minority student progress or school activities, is conducted, to the extent possible, in the native/preferred language of the home.

Seven Oaks maintain records that indicate the following:

- i. The native language of the student,
- ii. The English language proficiency level of the student,
- iii. The type and frequency of English language development services offered,
- iv. The instructional and assessment adaptations made based on level of English proficiency, and
- v. Other intervention strategies employed.

The method of maintaining this information for each language-minority student is the Individual Learning Plan (ILP). ILPs are developed for each student and updated annually based on their Overall/Composite of English proficiency on LAS Links. ILPs are developed by the ESL teacher in collaboration with the classroom teacher. Accommodations used on ISTEP+ must be those already in place for regular classroom instruction that are outlined on each ILP.

d. How the school will provide qualified staffing for ELL students.

All English Language Learners (ELL) personnel will be certified, endorsed, or licensed in the area of assignment. Additional ELL personnel will either be employed or contracted with depending on the students' needs at the school. Seven Oaks will participate in training programs designed to help the development and implementation of these guidelines offered; these will be facilitated by the Office of English Language Learning & Migrant Education, including in-service and technical assistance. Other resources for staff development may include courses available through the Regional Educational Service Centers, various university-level courses, annual conferences held by the Office of English Language Learning & Migrant Education, Indiana Teachers of English to Speakers of Other Languages (INTESOL) and the national Teachers of English to Speakers of Other Languages (TESOL) and National Association of Bilingual Education (NABE) conferences.



4. Explain how the school will identify and meet the learning needs of students who are performing below grade level and monitor their progress. Specify the programs, strategies and supports you will provide for these students.

Seven Oaks believes that there will be interventions embedded into the daily life of the school to address students who are functioning below grade level. School academic operations will include an established strategy of increasingly intensive steps when a student is not learning or progressing at an effective pace. The following measures will be implemented to monitor and ensure that students are making adequate academic progress as part of the Response to Intervention (RTI) process:

- a. Team Meetings:** A collaborative team composed of educators and administration will be established to address the following tasks:
 - i. Identify and map objectives.
 - ii. Create schedules for learning.
 - iii. Develop formative assessments.
 - iv. Establish criteria for success.
 - v. Assess student progress.
 - vi. Assign interventions.
- b. Formative Assessments:** Seven Oaks will conduct periodic assessments to gather data. Educators will utilize the results to monitor student progress. Intervention strategies will be assigned for students not making adequate growth.
- c. Intervention Strategies:** Under RTI, students identified as needing additional assistance to ensure adequate academic performance will be engaged in intervention strategies that will focus on the individual needs of the student. Intervention strategies will include, but not be limited to:
 - i. Student Centered: Two co-curricular activities, peer tutoring, student council monitoring, privilege system
 - ii. Faculty Centered: Faculty advisors, team attendance meetings, guided study, tutoring
 - iii. Parent Centered: Parent monitoring, parent communications, mid-marking period progress reports, daily progress reports

5. Explain how the school will identify and meet the needs of intellectually gifted students, including:

a. The specific evidence-based instructional programs, practices, strategies, and opportunities the school will employ or provide to enhance their abilities.

Seven Oaks will provide students with a rigorous classical education in the liberal arts and sciences. For those students who are academically advanced, additional opportunities will be provided to enhance their education, e.g., additional electives. Seven Oaks understands that students can be gifted in one area or another and not necessarily tied to their cognitive scores.

b. How the school will provide qualified staffing for intellectually gifted students.

All special education personnel will be certified, endorsed, or licensed in the area or areas of assignment in accordance with 34 CFR §300.156 or appropriate state agency credentials.

c. How the school will assess and monitor the progress and success of intellectually gifted students.

Any student with an IEP shall have his or her program reviewed annually or more frequently should the student not be making adequate progress towards his or her goals stated within the IEP.

Student Recruitment and Enrollment

1. Explain the plan for student recruitment and marketing that will provide equal access to any family interested in the new school. Explain how this strategy will garner the targeted enrollment.



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

As Seven Oaks has been introduced to the Bloomington community, the school has launched a professional, systematic, research-based, and dynamic public awareness campaign. A blend of marketing, advertising, public relations, and community engagement has been implemented to generate awareness of, and interest in, the school. Empirical evidence from Hillsdale College-affiliated schools shows that this method of recruitment has proven successful in reaching above and beyond the targeted enrollment. See below for enrollment numbers and wait list data:

	Founders Classical Academy (Lewisville, TX)	Estancia Valley Classical Academy (Moriarty, NM)	Savannah Classical Academy (Savannah, GA)	Northwest Arkansas Classical Academy (Bentonville , AR)	Atlanta Classical Academy (Atlanta, GA)	Mason Classical Academy (Naples, FL)	Founders Classical Academy (Leander, TX)	Founders Academy of Las Vegas (Las Vegas, NV)
TOTAL ENROLLED	809	395	377	522	486	413	457	440
TOTAL WAITING		0	121		1163	167	668	13
K		0	29		205	72	148	0
1		0	23		165	21	85	13
2		0	4		161	11	105	0
3		0	0		173	29	94	0
4		0	16		154	7	92	0
5		0	0		148	25	76	0
6		0	49		96	2	57	0
7		0	0		33		0	0
8		0			28		11	0
9		0					0	0
10		0					0	0
11		0						
12		0						

The responsibilities for this process are split between the school's marketing committee and school leadership integrated into the community.

The public awareness campaign involves the use of a variety of high-quality, well-designed publicity materials. These resources include, but are not limited to:

- Brochures, Flyers, Postcards
- Website (www.SevenOaksClassical.org)
- Newspaper advertisements
- Press releases
- Social media presence and advertisements



f. Conference display

2. Provide, as Attachment 11, the school's Enrollment Policy

Please see Attachment 11 for Seven Oaks' enrollment policy.

Student Discipline

1. Describe the philosophy of student discipline that supports your school model, including procedures to ensure the integrity and authenticity of student work product and assessment scores.

Seven Oaks Classical School is committed to and will be required to enhance learning for *all* students. Seven Oaks students will be expected to be well behaved at all times and to respect themselves, others, and property. Our philosophy regarding discipline is that discipline policies and procedures should provide guidance and direction toward acceptable behavior in order to develop a child's own sense of self-discipline.

The goals of discipline at Seven Oaks are:

- To maintain a highly effective learning environment where students focus on gaining knowledge with as little distraction as possible.
- To utilize the need for discipline as a rich opportunity for students to learn about themselves and others, and to provide students with actual character education and lessons.
- To reinforce Seven Oaks' commitment to treating all students with fairness, respect, and equality.

2. Provide as Attachment 12 the school's discipline policy.

See Attachment 12 for the school's discipline policy.

PARENTS & COMMUNITY

1. What other school options exist in the targeted location for your proposed school? In list or table format, please describe all other schools – traditional public, charter and/or private – in the immediate vicinity with the same or similar grade level configuration.

During the 2013-2014 school year, 10,953 students were enrolled in the Monroe County Community School Corporation. During the 2013-2014 school year, 2,823 students were enrolled in the Richland-Bean Blossom Community School Corporation. In addition to MCCSC and RBBCSC, there are a number of private secular and non-secular schools. The following table breaks down the enrollment by grade for each school.

SCHOOL NAME & TYPE	ENROLLMENT BY GRADE	2014 A-F GRADE
PUBLIC SCHOOLS		
Arlington Heights Elementary School (6181)	K: 55; 1:39; 2: 35; 3:42; 4:56; 5:38; 6:41 Total: 306	B
Binford Elementary School (6173)	3:139; 4:108; 5: 133; 6:117 Total: 513	A
Childs Elementary School (6187)	K:63; 1:66; 2:70; 3:58; 4:67; 5:81; 6:66 Total: 485	A
Clear Creek Elementary School (6189)	K:42; 1:51; 2:54; 3:52; 4:58; 5:64; 6:70	C



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

	Total: 415	
Fairview Elementary School (6197)	K:70; 1:63; 2:50; 3:58; 4:42; 5:31; 6:51 Total: 385	F
Grandview Elementary School (6157)	K:68; 1:64; 2:62; 3:51; 4:52; 5:62; 6:70 Total: 438	C
Highland Park Elementary School (6162)	K:50; 1:45; 2:64; 3:38; 4:46; 5:43; 6:46 Total: 344	F
Lakeview Elementary School (6134)	K:65; 1:69; 2:73; 3:76; 4:67; 5:70; 6:67 Total: 503	C
Marlin Elementary School (6213)	K:29; 1:33; 2:38; 3:28; 4:40; 5:37; 6:36 Total: 241	A
Rogers Elementary School (6217)	K:106; 1:120; 2:127 Total: 353	A
Summit Elementary School (6164)	K:81; 1:80; 2:84; 3:70; 4:76; 5:70; 6:68 Total: 548	B
Templeton Elementary School (6223)	K:76; 1:75; 2:67; 3:69; 4:53; 5:44; 6:63 Total: 491	A
Unionville Elementary School (6123)	K:29; 1:35; 2:34; 3:32; 4:30; 5:39; 6:25 Total: 224	A
University Elementary School (6226)	K:71; 1:82; 2:70; 3:52; 4:71; 5:79; 6:72 Total: 532	A
Lola L. Batchelor Middle School (6172)	7:286; 8:249 Total: 535	A
Jackson Creek Middle School (6223)	7:280; 8:272 Total: 552	B
Tri-North Middle School (6170)	7:272; 8:292 Total: 569	A
Bloomington Graduation School	9:13; 10:18; 11:20; 12:21 Total: 73	No Letter Grade Available
Bloomington High School North (6168)	9:418; 10:378; 11:375; 12:363; 12+:3 Total: 1537	A
Bloomington High School South (6166)	9:445; 10:431; 11:426; 12:421; 12+:7 Total: 1730	A
The Academy of Science and Entrepreneurship-A New Technology High School (6202)	9:16; 10:26; 11:31; 12:37 Total: 110	B



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

Edgewood High School	9:211; 10:186; 11:191; 12:167; 12+:4 Total: 759	A
Edgewood Junior High School	6:209; 7:215; 8:216 Total: 640	C
Edgewood Intermediate School	3:194; 4:201; 5:154 Total: 549	A
Edgewood Primary School	K:200; 1:181; 2:182 Total: 563	A
Stinesville Elementary School	K:33; 1:26; 2:36; 3:37; 4:33; 5:28 Total: 193	A
PRIVATE SCHOOLS		
Adventist Christian Elementary Academy	K:1; 1:3; 5:2; 6:2; 7:1; 8:2 Total: 11	No Letter Grade Available
Bloomington Montessori School	No Enrollment Data Available through IDOE	No Letter Grade Available
Clear Creek Christian School	K:12; 1:16; 2:12; 3:16; 4:13; 5:9; 6:8 Total: 86	A
Grace Baptist Academy	No Enrollment Data Available through IDOE	No Letter Grade Available
Harmony School	No Enrollment Data Available through IDOE	No Letter Grade Available
Lighthouse Christian Academy (C927)	K:18; 1:17; 2:18; 3:19; 4:18; 5:20; 6:22; 7:17; 8:13; 9:14; 10:14; 11:7; 12:11 Total: 208	B
Pinnacle School (Special Program Emphasis) (C899)	K:3; 1:4; 2:5; 3:17; 4:13; 5:8; 6:13; 7:13; 8:9; 9:9; 10:6; 11:3; 12:3 Total: 106	No Letter Grade Available
St. Charles Catholic School	K:47; 1:45; 2:40; 3:39; 4:30; 5:44; 6:41; 7:38; 8:38 Total: 399	A
The Prep School Academy (C918)	K:28; 1:37; 2:19; 3:15; 4:11; 5:9; 6:1 Total: 120	A
Wings of Love Academy (C910)	No Enrollment Data Available through IDOE	No Letter Grade Available
CHARTER SCHOOLS		
The Bloomington Project School (6215)	K:23; 1:32; 2:33; 3:35; 4:31; 5:23; 6:28; 7:32; 8:30 Total: 267	A



2. What will be unique or compelling about the proposed school? How have you determined that the proposed school will have sufficient demand from student and families to meet enrollment projections?

Seven Oaks Classical School will bring classical education to Monroe County, where it does not currently exist as a public or private option. Parents and students will thereby be given an exceptional proven alternative. Seven Oaks Classical School will ground education in the humanities, the sciences, and the arts in several current and research-based curricula/programs in the elementary and middle school. These include: the Core Knowledge Sequence — a specific, grade-by-grade core curriculum of common learning; Riggs Institute's *The Writing & Spelling Road to Reading & Thinking* — a multisensory, brain-based approach for teaching “explicit” phonics, reading, and language arts; and Singapore Math — a conceptual approach to mathematical skill building and problem solving. Seven Oaks’ curriculum and supplemental programs were selected specifically to meet the needs of all students within Monroe County, and we expect a population of students from diverse backgrounds and learning abilities. Our curriculum and supplemental programs are time-tested and research-based, and they have been successfully implemented for students from academically, socially, and economically varied backgrounds.

3. Describe how you will engage parents in the life of the school, starting from the time that the school is approved. How will the school build family-school partnerships to strengthen support for learning and encourage parental involvement? Describe any commitments or volunteer activities the school will seek or offer to parents.

Parental involvement and community collaboration are critical to student growth and will provide the educational investment necessary to develop students into members of a skilled workforce and responsible citizens. To this end, Seven Oaks will expect parents to support the mission and vision of the school. Seven Oaks anticipates that parents will set good examples for their children, encourage them in critical thinking skills, provide them quiet study space at home, teach them effective study skills, and limit the time the children participate in activities such as watching television or playing video games.

To make sure parents have the opportunity to be fully involved in their children’s lives, teachers will communicate with parents on a regular basis. Seven Oaks believes that family is an integral part of each student’s life. Thus, parents will be informed of behavioral, social, and/or academic problems of their child.

While parental involvement in the school is important, Seven Oaks is aware that, in order to gain their full support, parents need to be pleased with the education provided. We will determine parent satisfaction through several measures. First, parents will have the opportunity to communicate with staff members, including teachers and the assistant headmaster, on a regular basis. Parents will be involved in conversations regarding disciplinary actions for their children and will be encouraged to provide appropriate guidance at home. Parents will also be encouraged to visit the school to observe classroom activities. Second, parents will be encouraged to participate on a council with teachers and staff members. The purpose of this is to bring the home and school into a closer relationship so that parents and teachers may collaborate in the education of their children. Finally, parents will have the opportunity to participate in an annual Parent Satisfaction Survey created by the Seven Oaks’ administration and staff and approved by the governing board. Seven Oaks will track the results of these surveys and utilize the responses to continuously improve education for students.

Additionally, all parents of Seven Oaks Classical School students are members of what will be referred to as the “Parents Association.” This group will exist to promote friendly relationships among parents, to acquaint them with the spirit of Seven Oaks Classical School, to obtain their cooperation with its



objectives for the development of their children, and to initiate the parents' involvement in, and support for, projects and functions that aid Seven Oaks academically, socially, and financially.

The mission of the Seven Oaks Parents Association will be:

- To help Seven Oaks communicate with parents.
- To help the parents understand the fundamental premises upon which Seven Oaks is based.
- To help schedule, promote, and host student and parent activities.
- To welcome new parents into the association and to instill in the new parents the need for their continued involvement and support of Seven Oaks.
- To encourage pride and respect in the children of Seven Oaks.

4. What community resources will be available to students and parents? Describe any partnerships the school will have with community organizations, businesses, or other educational institutions. Describe any fee-based or in-kind commitments from community organizations or individuals that would enrich student learning opportunities.

Seven Oaks Classical School has a website (www.SevenOaksClassical.org), and Facebook page (www.facebook.comSevenOaksClassicalSchool).

It is the aim of Seven Oaks to grow into a reputable educational institution that will work with the community to ensure the development of the academic potential and personal character of each of its students, regardless of background, socio-economic status, and ability. Seven Oaks will also strive to graduate students fully prepared to become intelligent and responsible members of their community.

5. Provide, as Attachment 13, evidence of demand from the community, evidence of community engagement, and evidence of support from community partners.

See Attachment 13 for evidence of demand from the community, evidence of community engagement, and evidence of support from community partners.

PERFORMANCE MANAGEMENT

1. Each school authorized by Grace College will be evaluated according to a consistent set of indicators and measures. Apart from these indicators and measures, what other goals will students at the school be expected to achieve by the end of the charter term?

Student academic performance is the number one priority of Seven Oaks Classical School. Student performance expectations will be aligned with the mission and the educational plan.

Educational goals and objectives:

- At the completion of Year 3, 90% of students in the 3rd grade will demonstrate proficient or advanced scores on the IREAD and ISTEP.
- At the completion of Year 4, 90% of students in grade 8 will pass the End of Course Assessments in Algebra.
- At the completion of Year 5, 95% of students in the 3rd grade will demonstrate proficient or advanced scores on the IREAD and ISTEP.
- At the completion of Year 5, 90% of our students who apply to post-secondary institutions will be accepted.
- A graduation rate of 95% of higher beginning in Year 6.

2. In addition to mandatory state assessment and testing requirements (ISTEP+, IREAD-3, IMAST, ISTAR, and ECA, as applicable), identify the primary interim assessments the school will use to assess student learning needs and progress throughout the year (e.g., DIBELS, Acuity, TABE).



Formative and summary assessments are used to monitor progress. Formative assessments, sometimes administered prior to content delivery, will establish a baseline of knowledge that students already possess and will inform educators of content needs that students have in subjects and disciplines. Summative assessments, such as the state-mandated end-of course assessment for algebra, will provide a summary profile of learned content. If students have not progressed or grown to meet benchmarks, it is vital that educators know this so that they can provide additional instruction to ensure that the material is retained and understood.

Interim assessments will be used to monitor student progress. They will include:

- Acuity, which is administered three times per year
- DRA (Diagnostic Reading Assessments) for students grades K-2
- Teacher-developed pre- and post-assessments
- Teacher-developed rubrics
- The Core Knowledge Sequence Assessments
- The Riggs Assessments
- Singapore Math Assessments

3. Explain how the school will collect and analyze student academic achievement data, use the data to refine and improve instruction, and report the data to the school community. Identify the person(s), position(s), and/or entities that will be responsible and involved in the collection and analysis of assessment data.

As an ongoing practice, data from both summative and formative assessments (formal and informal) will be collected and analyzed weekly to determine if students are making the expected progress. The data collected will be used to determine appropriate placement in skill groups for math in addition to evaluating student strengths, challenges, and weaknesses in the core content areas. The data from all assessments will be disaggregated to show a trend analysis not only for each student but for all students. Statistical methods will be used, when applicable, to streamline the data-collection and analysis processes. Seven Oaks will use the results of the data to drive instruction. Adjustments will be made to the curriculum, instructional delivery, and any other areas necessary to improve student achievement.

In addition, Seven Oaks will establish a school leadership committee which will consist of the headmaster and/or assistant headmaster, three (3) teachers from the grammar school, one (1) teacher from the middle school and two (2) teachers from the high school. This committee will generate an annual report to document school data and supplemental information that helps to provide a comprehensive picture of Seven Oaks' overall school performance. The School Leadership Committee will identify goals, strategies and action steps to address student achievement.

Seven Oaks believes in the importance of assessments but understands student learning and how teachers instruct is central, rather than merely focusing on raising test scores and school grades. Assessment should not always happen at the end of a lesson or unit but rather in the middle. This ensures teachers have an opportunity to evaluate and inform instruction. Students also play a role in assessment as they assess themselves through reflection on their own individual work and how they can improve and build on prior knowledge.

4. Describe the information system the school will use to manage student performance data. Identify the staff member(s) who will be responsible for warehousing the data, interpreting the data for classroom teachers, and leading or coordinating professional development to improve student achievement.

Seven Oaks Classical School will research and choose the most appropriate information system to manage student performance data. The administration team of Seven Oaks, the School Leadership Committee, and the Education Committee will receive both annual data analysis training and consistent



performance data analysis review through both an annual performance data analysis update and regional training sessions. Individual student and group data will be produced, updated, and analyzed at the school by the teachers and reported to the headmaster. The School Leadership Committee and the Education Committee will review school data and assist with interventions to improve student learning.

Quarterly Report Cards: Teachers will be responsible for keeping data on each student in their class in a threefold way. Instead of giving a single letter grade, the teacher will analyze students' academic achievements through three kinds of data: level of achievement, quality of work, and progress toward academic standards. Achievement levels refer to achievement toward exit-level standards of performance sophistication (basic, proficient, and advanced can be used). Work quality refers to the caliber of the products produced at any level. Progress refers to absolute gains toward exit standards (not to be confused with growth, which is measured as change in the individual). These reports will be used during parent-teacher-student conferences held no less often than twice per school year.

5. Explain the training and support that school leadership and teachers will receive in analyzing, interpreting, and using performance data to improve student learning.

Training and support will come from the software vendor Seven Oaks chooses. Teachers and administration will receive additional training from such groups as Indiana Charters and the Indiana Department of Education. Further training will occur through curriculum seminars from Hillsdale College and professional development analysts to interpret and use performance data to improve student learning.

If a student illustrates significant deficiencies because of a weak education background or some other reason, the classroom teacher(s) will, in conjunction with the support staff, work on remediation strategies, which may include some pull-out tutoring and some modification of assignments. The purpose is to bring the student up to grade level. In the case of 7-8 students, remedial classes or extra tutoring may be assigned in place of electives. Parents will be informed about the strategies in place. Supplemental instruction will be provided through Riggs material and is in line with Response to Intervention.

6. Describe the corrective actions the organization will take if the school falls short of student academic achievement expectations or goals as established by the Indiana Department of Education. Explain what would trigger such corrective actions and who would be responsible for implementing them.

Seven Oaks Classical School will strive to meet all requirements related to student academic achievement expectations or goals established by the School and the Indiana Department of Education. The administration team of Seven Oaks will conduct an ongoing review of all campus-related activities, including a stringent review to ensure expectations are being met in areas related to academics. If an academic issue must be resolved, the administration team will make the corrective action necessary to address it quickly and accurately.

SECTION III: IMPLEMENTATION PLAN

School Staffing Structure

1. Provide, as Attachment 14, an organizational chart for the proposed school at Year 1 and at Full Capacity.

See Attachment 14 for the organizational chart for Seven Oaks Classical School at Year 1 and Full Capacity.

School Leadership & Staff Hiring, Management and Evaluation



1. Describe your strategy and timeline for recruiting and hiring teachers in accordance with IC § 20-24-6. Explain key selection criteria and any special considerations relevant to your school design. What key partnerships will support staff hiring? Identify known sources from which you will recruit teachers.

Seven Oaks will require all teachers to meet or exceed the expectations for certification as required by Indiana Code 20-24-6, Section 5, Qualifications for full-time teachers; part-time teachers; other providers of service. That section of the law states that at least 90% of the individuals who teach full time in a charter school must either:

- (1) hold a license to teach in a public school in Indiana under IC 20-28-5; or
- (2) be in the process of obtaining a license to teach in a public school in Indiana under the transition to teaching program established by IC 20-28-4-2. The school will comply with all teacher/paraprofessional certification requirements of the Federal No Child Left Behind Act. Lower school teachers will be competent in all of their subjects. All middle school teachers will be masters of their fields.

Seven Oaks Classical School will follow all federal and state employment laws. Seven Oaks will conduct the necessary expanded criminal history checks (definition found at IC 20-26-2-1.5) according to Indiana Code 20-26-5-10, which requires all school corporations, charter schools, and accredited nonpublic schools to adopt and administer a policy for all applicants of both noncertified or certificated employment to obtain an expanded criminal history check as of July 1, 2009. All potential employees will need to submit and pass both the criminal background check and results of fingerprinting in order to be considered for employment at Seven Oaks.

The headmaster of Seven Oaks, in consultation with the governing board, which is responsible for setting the salary schedule and approving the annual budget for staffing needs, will recruit and interview qualified applicants, and will hire all teachers and other employees for the school. As a classical school, Seven Oaks will preferentially hire teachers who are familiar with and support the classical model of education. Seven Oaks will be aided in recruiting by Hillsdale College, which hosts an annual job fair for classical schools. In addition, Seven Oaks will recruit graduates from other classical and liberal arts colleges around the country (e.g., Thomas Aquinas College, University of Dallas, and St. John's College). Recruiting will begin as soon as the headmaster is employed in early 2016, with hiring of teachers to start in March 2016.

2. Describe the staffing plan (e.g., leadership, instructional, and support roles; reporting relationships; and accountability for student outcomes) your school will use to ensure that every student has access to excellent teaching. Will the staffing model incorporate technologies, new roles for teachers and other staff, or innovative instructional techniques toward that end? If yes, how?

Among other vital roles, the headmaster will manage Seven Oaks as well as its overall instructional leadership for the charter school. He/she will have complete responsibility for all personnel matters, including the authority to hire (including teachers, support staff, administrators), assign, promote, discipline, and terminate school employees who do not adhere to Indiana law and Seven Oaks' policy. In addition, he/she will ensure that each student will be able to access excellent teaching by keeping up to date on all current curricular and educational thoughts, trends, and practices. He/she will make professional development opportunities available to the school staff and conduct systematic performance evaluation of school personnel. The teachers and staff will be held to a high level of accountability and the headmaster will be in charge of making certain that occurs.

All school personnel will report to the headmaster and have regularly scheduled meetings with him/her. The headmaster will ensure that teacher inputs are regularly communicated to the governing board. The headmaster and the governing board will determine how to best address teacher input regarding school governance. In addition, the assistant headmaster will work with the headmaster in all areas of school



management, curriculum development, and student services. He/she will work as the instructional leader of Seven Oaks as well as monitoring school activities (including developing programs to encourage committee participation, student organizations, community support, and extracurricular clubs that students may start that support or are related to academic achievement).

The teachers will be competent or masters in their subjects. Because of their strong knowledge and expertise, teachers will be best equipped to help students to develop their own knowledge and skills to allow them continuous growth and development. Teachers will provide an enriching environment where students will learn in a variety of ways; they will establish rapport with students and their parents. Individualized attention and a variety of learning styles will be highlighted, thereby ensuring that every student, no matter his or her background or style of learning, will have access to an excellent education.

3. Explain how – and how frequently – the school will evaluate the performance of the school leader and teachers. What key elements will drive evaluations, and who will conduct them?

The school headmaster will be evaluated by the school board on at least an annual basis. While the headmaster will formally evaluate the teachers once per semester, informal evaluations will occur via frequent “drop in” visits throughout the year. The governing board will perform ongoing assessments of the school and its programs and operations. The governing board will also routinely assess its own performance. Governing board members will participate in and develop short- and long-range plans for the school. They will monitor the effectiveness of the school’s programs and implementation to determine if the school has met its stated goals. Seven Oaks will comply within the parameters of rule and law for said evaluations.

4. Explain how the school would handle unsatisfactory leadership or teacher performance, as well as leadership/teacher changes and turnover. How will the school identify and address development needs or concerns?

All faculty and staff will be evaluated at least yearly. These evaluations will be based on formal observations, informal observations, and measures of student growth and development. An evaluation program, such as RISE or TAP, will be determined by the headmaster and subject to board approval. Identified performance gaps will be addressed through improvement options that include but are not limited to professional development, mentor/peer assistance, teacher action, and/or administrative action. Improvement goals will be identified and a timeframe will be determined to achieve set goals. The headmaster may initiate disciplinary action which may range from verbal, written or final warnings to suspensions or immediate termination, depending on the facts of the particular case and the employment history of the teacher. The headmaster will use board support throughout the process if deemed necessary. If the employee fails to meet the necessary improvement goals within the agreed upon time-line, employment renewal or non-renewal recommendations will be submitted to the board.

The headmaster will receive an annual performance review with criteria including commitment to mission, objectives, and goals; school and program development; organization, planning, and preparation; instructional practices and student achievement; communication, accessibility, professionalism, and collegiality; sound business practices and a safe and orderly school environment; secure maintenance of school records; and community outreach. Unsatisfactory leadership performance will bring a Corrective Action Plan by the board. The board will outline a plan of action to help the headmaster reach desired goals. The board will consult with the headmaster regularly to monitor progress of goals. If the headmaster fails to meet the necessary improvement goals within the agreed upon time-line, the board will consider termination.

5. Provide an overview of the school’s compensation system (including benefits) and how this aligns with the performance evaluation process. For Indiana requirements regarding employee benefits, see for example the following: IC § 20-24-6-7.



The Seven Oaks Governing Board will develop an employee handbook that will include all human resources policies and other information needed for its staff. The handbook will contain policies and procedures regarding employment, employment status and records, employee benefit programs, timekeeping/payroll, work conditions and hours, leaves of absence, and employee conduct and disciplinary action. At the end of each school year, the headmaster and the Seven Oaks board will review and revise the staff handbook as appropriate. Evaluation outcomes will be tied to compensation increases. Currently, Seven Oaks has budgeted average salary increases of 2% per year based on these evaluations. Since compensation is based on the results of these evaluations, some teachers may see a more significant increase in their salaries. The performance evaluation rubric and corresponding compensation rubric will be further developed by the headmaster and governing board. Seven Oaks has an additional 20% on top of existing salaries budgeted for benefits.

Professional Development

1. Describe how school leaders will be supported and developed throughout the year.

For a school like Seven Oaks Classical School, professional development for all staff members focusing on fulfilling the school's curriculum and instructional goals is mission critical. It is vitally important to students' academic performance that the staff be optimally effective in teaching in a classical school environment while addressing the Indiana Academic Standards in their daily instructional practice. Essential skills and knowledge training, along with professional development, of Seven Oaks Classical School staff will address the following as a baseline:

- Pedagogy, strategies, and best practices for teaching in a classical school environment
- A working knowledge of the Seven Oaks curriculum and enhancements as well as state and district graduation requirements
- How to utilize and navigate the tools of the education management system chosen
- How to develop Personalized Learning Plans
- Forms of assessment and how to utilize results to guide instruction
- Knowledge of school processes and policies
- Collaborating on continuous improvement of curriculum
- How to foster a classical school community

Professional development activities will be provided before school begins and throughout the year. Seven Oaks Classical School teachers will participate in the following professional development activities designed to enhance their understanding of the curriculum and accountability measures:

- **Initial Teacher Orientation:** All teachers will attend teacher-training developed specifically for Seven Oaks Classical School. This training is to prepare teachers for the first few weeks of school, will cover "the basics," including curriculum, assessment, personalizing instruction, school year events, grading and report cards, communication, and essential educational management system tools. Upon successful completion of this training, teachers will be ready to begin instruction.
- **Seven Oaks Classical School Teacher Handbook:** The teacher handbook will contain policies, procedures, and "how to" components that will aid the teachers on a day-to-day basis.
- **Face-to-Face Training with Hillsdale College:** Before school begins each year, Seven Oaks Classical School staff will engage in up to two weeks of face-to-face training and orientation. Programming will be provided by Hillsdale College as well as local resources whenever possible.



- **Supplemental Teacher Training Course Segments:** Once the school is up and running, the education committee will work with Seven Oaks Classical School to present teachers with ongoing training appropriate to the needs of a classical school. These trainings sessions could include, but would certainly not be limited to, instructional strategies to help struggling learners, new assessments and curriculum elements, and processes that teachers need to implement once the school is successfully under way. There will also be a differentiated course designed specifically for returning staff members that would target new concepts and would serve as a refresher on basic skills.
- **Seven Oaks Classical School Professional Development Sessions:** With support from Hillsdale College, Seven Oaks Classical School will provide teachers with ongoing professional development activities throughout the year. Presenters with various backgrounds and areas of content expertise will conduct live sessions on a rotating basis throughout the school year. Teachers would be required to attend these sessions throughout the year on designated professional development days. Topics might include the following: implementing specific instructional strategies, current curriculum-specific topics and trends, effective teaching strategies and communication skills for a classical school environment, utilizing the state standards to guide instruction, educational technology, and using data to guide instruction. These sessions would result in professional development certificates needed for certification upkeep.

2. Provide a schedule and explanation of professional development that will take place prior to school opening. Explain what will be covered during this induction period and how teachers will be prepared to deliver any unique or particularly challenging aspects of the curriculum and instructional methods. Teachers will participate in professional development before the school year begins and in accordance with the school calendar:

Foundations of Classical Education. Examine the ideas of what an education is; what are the branches of knowledge and instruction; how these relate to the mission of the school; historical usage of these ideas in antiquity, the Western Tradition, and the American founding period; and how it differs from other educational philosophies.

Core Knowledge. Present an overview of the structure and design of the Core Knowledge Scope and Sequence; the underlying ideas leading to the design; how to plan for lesson delivery through the construction of curriculum maps and syllabi; considerations in lesson design based upon the structure of the CK sequence.

Academic Policies. Present the philosophy accompanying the design of the following academy policy areas: homework, grading, promotion, retention, cheating/plagiarism.

Mathematics. Present the design principles for mathematics curriculum scope and sequence; examine the overall comprehension objectives for the K-3 grade band and the 4-6 grade band; demonstrate the strengths of the curriculum elements (Saxon and Singapore) as they support the comprehension objectives; explain and demonstrate the Model Method to support instruction in Singapore Math.

Literature and composition. Present the principles of good writing and the practices for use by the teacher to develop writing abilities of the students; examine the purpose of reading literature and the approach to its teaching that supports the purpose.

Grammar. Outline the developmental continuum of grammar comprehension and usage; present methods of instruction leading to mastery by the student.

Science. Examine the nature of the body of scientific knowledge and how it relates to approaches to science instruction; present a set of purposes for the study of science; demonstrate the philosophical consistency between learning in science and learning in other disciplines in the school.

Phonics/Spelling/Handwriting. Present the concepts of phonics instruction as they relate to the acquisition of the skill of reading; demonstrate and practice the methods of phonics, spelling, and handwriting instruction which will lead to teacher proficiency in the curriculum delivery.



3. Include the expected number of days/hours for professional development throughout the school year and explain how the school's calendar, weekly schedule, and staffing plan will be structured to accommodate this plan. Explain how professional development will be aligned with the interim assessment process and adjusted during the year to address areas of need that are identified.

In addition to the eight days of training at the beginning of the school year and ongoing professional development throughout the school year, each Seven Oaks Classical School teacher will have daily opportunities for classroom and course planning. The headmaster will determine when the regularly scheduled faculty meeting will take place. This faculty meeting will address needs related to professional development, technology and general school needs planning.

4. Explain how the professional development program will be evaluated by the school to assess its effectiveness and success.

Seven Oaks Classical School teachers will be surveyed regularly regarding their satisfaction with professional development experiences to help guide continuous improvement in this area. In addition, specific teacher accountability metrics will help school administrators quantify the impact of professional development activities and areas in need of additional work. The education committee will conduct ongoing evaluations of professional development activities to ensure that all areas of curriculum and instruction and school support areas are being met through appropriate professional development opportunities that are in line with classical school needs.

Start –Up & Operations

1. Start-Up Plan. Provide, as Attachment 15, a detailed start-up plan for the period leading up to the school's first day of student attendance.

See Attachment 15 for a detailed start-up plan.

2. Start-Up Staffing and Costs. Complete the Start-Up (Year 0) Budget and Staffing worksheets in the Budget and Staffing Workbook (be sure to complete all pages in the Budget and Staffing Workbook, and provide as Attachment 17).

See Attachment 17 for the complete Start-Up Budget and Staffing Workbook.

3. Transportation. If the school will provide transportation, describe the transportation arrangements for prospective students. In addition to daily transportation needs, describe how the school plans to meet transportation needs for field trips and athletic events. Describe how the school will comply with the federal McKinney-Vento Homeless Assistance Act, 42 USC 11431, for homeless students, as well as the Individuals with Disabilities Education Act and 511 IAC 7-43-1(u).

Seven Oaks Classical School anticipates that parents and legal guardians of enrolled students will provide transportation for their own children or make carpool arrangements with other parents of children at the school. Seven Oaks will assist parents in making carpool arrangements should this be necessary. If funds should become available through changes in the charter school legislation, the board will consider allocating additional funds to expand and provide transportation options. The school will also work with before- and after-school care providers to ensure that transportation to and from school is a smoothly coordinated process. Should Seven Oaks be located in Ellettsville, it is planned that after-school options will be available to parents through the Boys and Girls Club, which is located in the same school building as Seven Oaks. In this case, school faculty and staff will be available to escort students to the check-in room. For other after-school care programs, transportation will be the responsibility of the parents and legal guardians. Special accommodations will be made where required to remain in compliance with state and federal law. Transportation for field trips and athletic events will be provided by contractors as needed through the funding currently allocated to these activities. Once an active athletics program is established, the school will seek to purchase a bus through fundraising and grant writing activities.



4. Safety and Security. Provide the school plan for safety and security for students, the facility, and property. Explain the types of security personnel, technology, equipment, and policies that the school will employ.

Seven Oaks Classical School places the highest priority on the safety and security of the school's students, faculty, staff, and property. The school will be equipped with restricted access doors throughout the building. All faculty and staff will be properly trained on security policies and procedures, warning signals, and the school's emergency plan. All school visitors will be required to sign in at the front office and wear an identification badge during their time at the school.

5. Technology Specifications and Requirements (for Blended Learning and Virtual Operators only).

This does not apply to Seven Oaks Classical School.

6. Insurance Coverage. Charter schools authorized by Grace College will be required to indemnify Grace College, the Indiana Department of Education, any related entities, and their respective members, officers, employees, officials and agents.

See Attachment 16 for Insurance Coverage.

Facility Plan

1. If you are in the process of identifying a facility, describe with as much detail as possible the viable facility options that your team has identified. Include in this section how you selected a target location, any brokers or consultants you are employing to navigate the real estate market, plans for renovations, timelines, financing, etc. Charter school facilities must comply with state and local health and safety requirements as described in IC §§ 20-26-7, 20-24, and as required by the Indiana State Department of Health, Office of the State Fire Marshall, Department of Public Works, and the corresponding local agencies. In addition, charter school applicants must be prepared to follow applicable city or town planning review procedures. Describe the organization's capacity and experience in managing these strategies, including managing build-out and/or renovations. Detail the specific interactions the applicant group has had with state and local agencies to determine whether the identified facilities are suitable and affordable. Explain the inputs, including specific sources of information, the applicant group has used to project all facility related costs. These inputs should be reflected in the facility related expenses included in the 5-Year Budget.

Not-applicable

2. If you have already identified a facility, or plan to locate the new school within a facility currently owned or leased by the applicant, please indicate the street address and the school district in which the building is located. Describe the facility, including whether it is new construction, part of an existing public or private school building, or part of another type of facility. Provide a detailed list of any anticipated construction or renovation costs (these should be described in the budget narrative and reflected in the budget). If possible, provide a layout and description of the proposed facility. Include the number and size of classrooms, common areas, recreational space, any community facilities, and any residential facilities. Explain how the facility will meet the needs of any students who are physically challenged.

Seven Oaks Classical School has identified the former Ellettsville Elementary School, now known as Eagles Landing, as the desired location for development of our K-12 programming. The street address for this site is 200 East Association Street, Ellettsville, Indiana. Located along State Road 46, 6.7 miles to the west of State Road 37, Bloomington's main north-south artery, the site offers easy access to residents of Monroe County and points beyond. The building, once the largest elementary school in the state of Indiana, was built in stages with the historic gymnasium dating to the 1930s, the lower two-story section (north building) dating to the 1950s, and the upper two-story section (south building), located above the



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

north building due to topography, in the 1970s. The building is located within the Richland-Bean Blossom School Corporation, with close proximity to the Monroe County School Corporation. Classrooms are spacious, with typically 900 square feet of space, with the overall building measuring 90,000 square feet.

Seven Oaks has been approached by the owner of the facility and asked to make an offer on the property. Given the timeline of school opening, the board of directors has opted to delay this action until receiving a charter from Grace College. It is worth noting that the Boy's and Girl's Club after-school program is a current tenant of the property and it would be in the interest of Seven Oaks for them to continue providing after-school programs. Additional discussions have been conducted with Girls Inc., an organization dedicated to advancing the progress of female students in esteem, development, and college readiness, regarding the expansion into this location. Seven Oaks believes that the Boy's and Girl's Club and Girls Inc. will provide valuable after-school and supportive services for our student population.

The highest and best reuse of a building is always a return to its original use. The former Ellettsville Elementary School is by far the best option for the immediate introduction and success of our new charter school. Seven Oaks will offer three K-1st classes, two 2-7th classes and one section of 8th grade with expansion of one grade each on successive years utilizing the upper floor and upper hallway connector of the north building, the entire south building, and the historic gymnasium. The hallway connector (at grade due to topography of the sites) offers K-1 classrooms with access to outdoor play areas to both the west and the east of the classrooms.

Classrooms for 27 students would be located on the first floor of the south building, with 6th grade and special programming space on the second floor. The existing kitchen and cafeteria space, also located in the south building, would be restored for those purposes. Finally, offices would be located alongside the K-1 classrooms on the first-floor hallway connector. Grades 7-8, along with library services, would be located in the upper connector hallway. As grades 9-12 are added, two additional classrooms would be utilized on the connected second floor of the north building. Special programming space, for art, music and computer labs, would be utilized for both K-8 and 9-12 on the first floor hallway of the north building. Access to the gymnasium for health and physical education classes, as well as athletics, would be accomplished through a dedicated stairway and use of the buildings elevator. Access for students with special needs would be facilitated by this elevator.

Seven Oaks has retained the services of Odle McGuire and Shook (OMS), architects and engineers in Indianapolis, to assist in the development of plans and designs for the repurposing of space within the former elementary school or, if need be, other options. OMS has extensive experience in the K-12 design market with hundreds of schools included in its portfolio. The company is well versed in negotiating and presenting for approval plans for zoning, permitting, and reuse of properties.

Finally, Seven Oaks has thoroughly evaluated multiple location options and offer one site as a possible alternative if negotiations for the former Ellettsville Elementary School should prove unsuccessful.

Budget & Finance

1. Describe the systems and processes by which the school will manage accounting, purchasing, payroll, and the required annual audit. Specify any administrative services expected to be contracted for the school. Describe the school's financial/internal controls.

Seven Oaks intends to contract with Indiana Charters to establish accounting, purchasing, and payroll processes. Indiana Charters' approach is to assist the school in finding the best possible administrative staff prior to start-up. Depending on the skills of the individuals the school hires, accounting processes will be customized to take best advantage of the on-site staff.



Regardless, all processes will require at least three different individuals to be involved in from the beginning to the end of each business transaction. Indiana Charters will provide qualified individuals to either carry out all accounting functions or to provide training and oversight to school staff.

Software, forms, and all components of the accounting system will be State Board of Accounts (SBOA) compliant and, more importantly, will be the property of Seven Oaks. Monthly management reports, including a statement of net assets, statement of revenue and expenditures, actual vs. budget analysis, and cash flow projections, will be provided to school leadership and the board.

Indiana Charters will assist Seven Oaks in the selection of a qualified CPA firm to conduct the annual audit and prepare appropriate non-profit informational tax returns.

2. Provide, as Attachment 17, a detailed 5-Year Pro-Forma Budget for the school by completing the Budget and Staffing Workbook Template.

See Attachment 17 for our 5-year budget.

3. Provide, as Attachment 18, a detailed budget narrative.

See Attachment 18 for our budget narrative.

4. Additional Requirement for Pre-Existing Non-Profit Organizations: If a pre-existing non-profit organization will be the charter holder/governing entity, provide the following as Attachment 19: (a) the last three years of audited financial statements and management letters; and (b) the most recent internal financial statements including balance sheets and income statements (at least through the end of June 2011).

This does not apply to Seven Oaks Classical School

SECTION IV: INNOVATION

Foundations of Innovation

Seven Oaks Classical School is an innovative school within the district because students will study Latin informally beginning in the elementary grades. Students will learn Latin roots, which improves reading comprehension and vocabulary. Students will also study history mainly through primary source documents to promote analytical skills and essential insight into their culture and heritage. Another unique aspect of Seven Oaks is the instruction in character education and the classical virtues. These will be integrated throughout the curriculum and in all grade levels. At Seven Oaks, high academic achievement, personal discipline, ethics, and personal responsibility will consistently be reinforced through the study of subjects in the classical tradition.

Classical education upholds a standard of excellence and has proven itself over the course of time. We believe Seven Oaks' high standards and research-based curriculum will provide students with a rigorous and well-rounded education that will challenge them to excel not only in learning but in character development. Students will graduate from Seven Oaks as highly literate and responsible citizens who are well prepared to uphold America's founding principles.

Description of Innovation

Several very unique innovations characterize Seven Oaks Classical School:



SEVEN OAKS

Classical School

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

- All students will study Latin to facilitate reading comprehension and vocabulary and bolster performance in all subjects.
- Upper level students will study history mainly through primary source documents to foster analytical skills and essential insight into their culture and heritage.
- All students will be trained in study skills such as time management, organization, note taking, and research that are essential for building stamina for further academic pursuits.
- The intent to instill virtues of character in the lower grades through the eight pillars of character education: responsibility, respect, industry, integrity, honesty, courage, citizenship, and cooperation. Instruction in the classical virtues (prudence, justice, temperance, and fortitude) will be introduced in the upper grades as a continuance of the elementary character program and a necessary support of the classical curriculum.

To achieve our mission, Seven Oaks will emphasize an education in the humanities, the sciences, and the arts in several current and research-based curricula/programs in the elementary and middle schools, which include: the Core Knowledge Sequence — a specific, grade-by-grade core curriculum of common learning; Riggs Institute's *The Writing & Spelling Road to Reading & Thinking* for teaching “explicit” phonics, reading, and language arts; and Singapore Math — a conceptual approach to mathematical skill building and problem solving. Students at Seven Oaks Classical School will receive a rigorous classical liberal arts education by studying literature, math, history, civics, the sciences, music, and art, which will align with but exceed Indiana and Common Core standards. Students will receive meaningful homework and teachers will train students at all levels in Socratic seminars to encourage intelligent, logical, and independent thinking. Seven Oaks’ curriculum, coupled with academically appropriate supplemental programs, has proven to be successful for all students, including special needs students and English Language Learners (ELL).

Attachments

Attachments 00-19 are contained in the following pages.

PROPOSAL OVERVIEW AND ENROLLMENT PROJECTIONS

Please provide information for the applicant group's **designated representative**. This individual will serve as the contact for all communications, interviews, and notices regarding the submitted application.

Name of proposed charter school:

Seven Oaks Classical School

Proposed charter school location:

* Please indicate the city/town and, if known, potential address or neighborhood of location. Virtual operators should indicate the relevant geographies the operator intends to serve.

200 East Association Street Ellettsville, Indiana 47429

School district(s) of proposed location:

Richland-Bean Blossom School Corporation

Legal name of group applying for charter:

Seven Oaks Classical School, Inc.

Names, roles, and current employment for all persons on applicant team, including each board member:

Lindsey Weaver, Hearing Specialist, Monroe County Community School Corporation

Matt Wolf, Technology Manager, Indiana University

Terry English, Attorney at Law, Private Practice

Dr. William Scott, Professor Emeritus, Indiana University Kelley School of Business

Fred Prall, Certified Public Accountant, President of Prall & Company

Jazzmin Vegeler, Behavioral Health Technician, Bloomington Meadows Hospital

Brigitta Powers, Teacher, Bloomington Classical

Linda Murphy, Speech and Language Pathologist, IU Health

Designated applicant representative:

Lindsey Weaver, Founding Board President

Address:

3210 East 10th Street, #7262

Bloomington, Indiana 47407

Office and cell phone numbers:

812-272-9716

Email address:

president@sevenoaksclassical.org

Planned opening year for the school:
(Fall 2016 or later)

Fall 2016

Model or focus of proposed school:
(e.g., arts, college prep, dual-language, etc.)

Classical Liberal Arts Education Model

Proposed Grade Levels and Student Enrollment

Indicate the grade levels the school intends to serve. Specify both the planned and maximum number of enrolled students by grade level for each year.

Academic Year	Grade Levels	Student Enrollment (Planned/Maximum)
Year 1	K-8	486
Year 2	K-9	540
Year 3	K-10	594
Year 4	K-11	648
Year 5	K-12	702
At Capacity	K-12	702

Will an application for the same charter school be submitted to another authorizer in the near future?

Yes ☐ No ☒

If yes, identify the authorizer(s):

Planned submission date(s):

Please list the number of previous submissions for request to authorize this charter school over the past five years, as required under IC § 20-24-3-4. Include the following information:

Authorizer(s):

Indiana Charter School Board

Submission date(s):

Fall 2014, Spring 2015

Attachment 1

Provide, as Attachment 1, full resumes (including contact information) for the individuals named. Identify members of the Founding Group who are proposed as board members, school leaders, or other key staff members of the school.

LINDSEY ANDREA WEAVER

4035 EAST BOLTINGHOUSE ROAD, BLOOMINGTON, INDIANA 47408

PHONE: (812) 272-9716 • E-MAIL: lindsey.weaver@sevenoaksclassical.org

EDUCATION

1994-1997 Culver Academies in Culver, Indiana

1997-2001 Hanover College in Hanover, Indiana

- Bachelor of Arts, Philosophy, and Anthropology

2004-2008 New Mexico State University in Las Cruces, New Mexico

- Master of Education in Special Education with focus in Communication Disorders/Deaf Education

EMPLOYMENT

2009-Present

Monroe County Community School Corporation, Dr. Kathleen Hugo, Director of Special Services, (812) 330-7700

Hearing Specialist, Itinerant Teacher of the Deaf/Hard of Hearing

- Provides direct and consultation services to the deaf/hard of hearing.
- Evaluates students and determines eligibility for deaf/hard of hearing children in accordance with Article 7 of the Indiana State Laws for Special Education.
- Coordinates training on assistive technology and the use/care of hearing aids & cochlear implants.

2007-2009

Brown County School Corporation, Matt Stark, (812) 988-6606, Special Services Department Lead, Barb Kelp, (812) 988-6606

Special Education Teacher, Moderate/Severe Classroom, Transition Program

- Planned and developed Individualized Educational Plans for students.
- Directly cared for the needs of medically fragile students.
- Organized individualized activities for moderate/severe-needs students.

2005-2007

Las Cruces High School, Nyeta Haines, (575) 527-9400, SPED Department Lead, Sarah Ogden, (575) 640-6637

Special Education Teacher, Low Incidence/Mentally Disabled/Pre-employment Program

- Organized and led Individualized Education Plan (IEP) meetings with parents and staff.
- Conducted assessments and compiled working records.
- Coordinated community involvement and transit training.

Summer (2003, 2004, 2005, 2006)

Las Cruces Public Schools Extended School Year (ESY), (575) 527-5800

Special Education Teacher, Deaf/Hard of Hearing Education

- Developed lesson plans in accordance with the ESY theme.
- Implemented plans and activities in the D/HH classroom.
- Directly Instructed the D/HH with American Sign Language.

2004-2005

Santa Teresa Elementary, Ralph Yturralde, (575) 589-3445

Special Education Teacher, Resource Pull-out Program

- Taught and enriched students with learning disabilities, as well as the gifted.
- Coordinated schedules with general education teachers to either remediate or enrich students' class loads.
- Organized appropriate lesson plans in accordance with students' Individualized Education Plans.

2002-2004

Mesilla Elementary, Barbara Bencomo, (575) 527-9566

Educational Assistant, Low Incidence/Severe and Profound Disabilities

- Aided teacher with appropriate lesson planning.
- Conducted and assisted in daily activities.
- Attended to and cared for the needs of developmentally disabled children in conjunction with several certifications and in accordance with various trainings.

*References available upon request

Matthew Wolf

112 Goss St. • Gosport, Indiana • 47433

CELL (812) 320-7155 • E-MAIL matt.wolf@sevenoaksclassical.org

EXPERIENCE

Information Technology Manager, Indiana University, Eppley Institute for Parks and Public Lands BLOOMINGTON, INDIANA - 2003 - PRESENT

- Help desk manager. Provide front line technical support for clients and tier 2-3 for web based customers. Train and coach tier one technical support staff.
- Managed development and launch of a new elearning platform, proValensLearning.com, to provide online training and education to professional in parks, recreation, public lands, and public health fields.
- Develop, implement, and maintain web-based applications, including ecommerce and learning management systems to deliver online learning for park and recreation professionals.
- Transitioned technology infrastructure to cloud based virtual servers eliminating the need, cost, and risks associated with onsite hosting.
- Lead many aspects of the Institute's marketing, consisting of web content, development of brochures, email marketing, Facebook and Twitter presence, and conference exhibitions.
- Implemented and customized a reporting system using SQL Server Reporting Services to produce monthly enrollment and completion reports, transcripts, and customer reports for clients.
- Designed and implemented website for an 18 month online training program for new superintendents at the National Park Service. This training program utilizes technology in all areas, including web conferencing, online asynchronous discussions, and an online learning environment to facilitate the tracking of participant progress.
- Manage multiple projects working with the National Park Service; including the development of over 60 web-based training modules in the past 10 years.
- Define and document Institute's business practices and IT policies, system maintenance procedures, University compliance, data retention policies, development best practices, and disaster recovery practices and protocols.
- Administration of five servers (3 Ubuntu LAMP, 2 Windows 2008)

Independent Technology Consultant BLOOMINGTON, INDIANA - 1998 – PRESENT

- Consult with local business on technology use; include web hosting, email, and business processes.
- Manage the design and development process of websites for clients including non-profits, political candidates, and businesses.
- Manage an Ubuntu Linux server for sending of mass email and website hosting. Developed custom PHP code to send daily updates to members based on daily website activity and content with total volume of about one million emails per month. Host websites on self-managed LAMP server. Manage security, tuning, account allocation, and disaster recovery.

Technology Support Specialist, Indiana University, HPER Technology Services BLOOMINGTON, INDIANA - 2001 - 2003

- Worked 20-30 hours per week while completing degree.
 - Supported Windows NT, 2000, XP environment consisting of over 200 computers and managed replacement of 150+ workstations.
 - Enhanced communication, customer support, and problem solving skills through interaction with school staff.
-

EDUCATION

Bachelor of Science, Business – Computer Information Systems
Indiana University, Bloomington, IN – 2003

SKILLS

General Skills: Project Management, Customer Support, and Conflict Resolution

Programming Languages: ASP.NET, PHP, Java; **Databases:** SQL Server, MySQL, SQLite

Web Based Skills: HTML, JavaScript, CSS, SQL

Operating Systems: Windows Server (2008, 2003, 2000), Windows (8.1, 7, Vista, XP), Mac OS X, Ubuntu

Applications (non-exhaustive): SQL Reporting Services, Tableau Business Analytics, MS Sharepoint, MS Project, MS Office, Photoshop, Adobe Connect, and Adobe Captivate

Web Platforms/System: Wordpress, Drupal, Wordpress, Magento E-Commerce, Moodle LMS

PROFESSIONAL INVOLVEMENT

Indiana Parks and Recreation Association 2013

Presented education session on technology and relationship management.

Association of Partners for Public Lands (APPL) 2012

Presented two sessions titled “Technology Toolkit” and “Relationship Management.”

Michigan Park and Recreation Association 2012

Presented education session on *Social Media Best Practices* for park and recreation agencies.

Association of Partners for Public Lands (APPL) 2011

Presented an education session on collaborative web-based technologies for public land agencies.

Great Lakes Park Training Institute 2010

Presented an education session on New Media and its use in Park and Public Land agencies.

National Recreation and Park Association 2009

Presented an education session "Building Online Communities to Increase Participation" focusing on the best uses of Social Networks and New Media.

Indiana Park and Recreation Association 2009

Co-presented a session on Web 2.0 technologies and applications in the park and recreation profession.

E-Learning Guild DevLearn 2008

Hosted a table sharing experience highlighting the Eppley Institute's use of Moodle open source learning management system.

National Recreation and Park Association 2007

Presented a paper on the strategic uses of IT within park and recreation organizations. Presentation focused on the uses of Web 2.0 including blogs, wikis, podcasting, RSS, location based services, and web conferencing.

Indiana Park and Recreation Association 2007

Co-presented a seminar on the utilization of technology within park and recreation organizations.

COMMUNITY INVOLVEMENT

Seven Oaks Classical School – Board Vice President 2014-Present

Monroe County Indiana Park and Recreation – Board Member 2014-2015

Beta Sigma Psi Bloomington Alumni Chapter – President 2011-Present

BloomingLabs-Kids Volunteer to teach kids about technology, electronics, and computers at BloomingLabs HackerSpace in Bloomington, Indiana.

**References Available Upon Request*

Fred Prall

1802 W. 17th St. Bloomington, IN 47404 | 812.334.3434 | fred@prall-cpa.com

SUMMARY

Certified Public Accountant and President of Prall & Company, Inc. Certified Public Accountants. Founder of Monroe County Tax Association. Formerly held a license as a real estate broker and in securities. Gives back to the community by providing free financial services to many local non-profit agencies.

EXPERIENCE

President, *Prall & Company, Inc.*

Helping small business owners manage their businesses to make them more profitable. Also helped several major clients in Bloomington obtain the necessary financing to expand their businesses bring in excess of 300 jobs to Bloomington through their combined efforts.

Founder, *Monroe County Tax Payers Association*

Instrumental in the formation of the Fire Safety Commission, an investigative branch of MCTA, which eventually led to the addition of important equipment, personnel, and many other improvements within the city.

Board Member, *Indiana Statewide Certified Development Corporation*

Founding board member of the Indiana Statewide Certified Development Corporation (CDC). The CDC was founded to help small businesses obtain Small Business Administration (SBA) sponsored capital funding to grow their business, thus creating new jobs for Indiana. The CDC has loaned over \$548 million dollars to Indiana businesses, creating in excess of 21,850 jobs.

EDUCATION

Bachelor of Science in Accounting, Minor in Finance, *Indiana University*

Master of Business Administration, *Indiana University*

**Terry L. English
Attorney at Law
820 N. College Avenue
Bloomington, IN 47404**

Telephone: (812) 334-2192 Facsimile: (812) 334-3675
Cellular telephone: 812-320-1026
E-mail: Barrister@bluemarble.net

Biographical Information

Work experience:

- May, 1979 to present -- Attorney in private practice in Bloomington, Indiana. Areas of specialty include creditors' rights (collections and mortgage foreclosures), bankruptcy, family law (dissolution of marriage, adoption, paternity and guardianship), business organization and reorganization, municipal law, school law and criminal law. I am a member of the Indiana State Bar Association and I am licensed to practice in state and federal courts in Indiana and before the United States Supreme Court.
- July, 2005 to present: Managing director of Prestige Auction & Appraisal Group, Bloomington, Indiana.
- August, 2000 to 2009 -- Adjunct professor of business and business law at Ivy Tech Community College, Bloomington, Indiana.
- 1991 to 1994 -- Legal columnist for *Indianapolis CEO Magazine* and *Columbus, Ohio, CEO Magazine*. These magazines were distributed to business leaders throughout central Indiana and central Ohio.
- August, 1988, to June, 1991 -- Adjunct professor of journalism (advanced newspaper reporting) at Indiana University, Bloomington.
- August, 1985, to June, 1988 -- Adjunct professor of business law at Ivy Tech State College, Bloomington, Indiana.
- October, 1974 to August, 1976 -- Associate editor of *Bloomington Herald-Times* newspaper, Bloomington, Indiana. I oversaw a staff of 19 reporters and editors. Between 1974 and 1984, I also wrote a consumer and legal column which was published twice weekly in newspapers in Bloomington and Bedford.
- April, 1974, to October, 1974 -- Press aide to Indiana Secretary of State Larry Conrad. During the day, I worked in the corporations division of the Secretary of State's Office. During the evenings, I traveled with Mr. Conrad to re-election campaign appearances and assisted with press relations.

- January, 1972, to April, 1974 -- Police and courts reporter for *The Evansville Press* newspaper, Evansville, Indiana.
- June, 1971, to January, 1972 -- Night national editor of the *Charlotte (N.C.) Observer* newspaper.

Education:

- Doctor of Jurisprudence degree from Indiana University, Bloomington, Indiana, 1979 (I attended the I.U. School of Law from August, 1976, to December, 1978). Technical editor of the *Indiana Law Review*, 1978. In 1978, the *Law Review* published an article written by me entitled "DNA and the Congressional Prerogatives: Proposals for a Deliberate Legislative Approach to Genetic Research."
- Bachelor of Arts degree in journalism from Indiana University, Bloomington, Indiana, 1971 (I attended I.U. from August, 1967, to May, 1971). While at I.U., I was editor of the *Indiana Daily Student* newspaper in 1971.
- Candidate for Master of Business Administration (MBA) degree from Ball State University, Muncie, Indiana. Completion of degree requirements expected in 2015.
- Coursework in theatre and drama ongoing at Indiana University, Bloomington (with emphasis on playwriting and screenwriting).

Personal Information:

- Married for 35 years to Carla English. One son, Jeremy.
- Former president of the Sons of the American Revolution, Daniel Guthrie Chapter; Indiana State Chancellor, Sons of the American Revolution; member of the Sons of Colonial New England; member of the Society of Indiana Pioneers.
- Graduate of the Indiana Leadership Forum, Indianapolis.
- Member of the Board of Directors of the Indiana Journalism Hall of Fame.

VITA

William E. Scott, Jr.

Professor of Organizational Behavior

Indiana University Graduate School of Business

Address

Residence 500 Iron Gate Trail
Bloomington, Indiana 47403
Telephone: (812) 430-2020

Educational Background

A.B. Psychology, Indiana University, 1955
M.S. Industrial/Organizational Psychology, Purdue University, 1957
Ph.D. Industrial/Organizational Psychology, Purdue University, 1962

Honorary and Professional Affiliations

Psi Chi
Beta Gamma Sigma
Society of Sigma Xi
Society of Organizational Behavior
Midwest Psychological Association
American Psychological Association
International Association of Applied Psychology
Academy of Management

Positions Held

1949-1953	Aviation cadet and subsequent assignment as a carrier pilot and officer in the U.S. Navy
1954-1957	Counselor, Men's Residence Halls, Indiana University and Purdue University (Part-time)
1957-1962	Assistant Personnel Director, Purdue University
1957-1963	Member, Board of Directors, Monon Trailer and Body Manufacturing, Inc.
1958-1960	Member and Chairman of Management Advisory Board, Purdue University
1959-1963	Founder and Chairman of the Board, Scott Managerial Consulting Associates, Inc.
1960-present	Part-time management consultant (certified in the state of Indiana for private psychological practice)

1963-1966	Assistant Professor of Personnel and Organizational Behavior, Indiana University Graduate School of Business
1965-1966	Acting Chairman, Department of Personnel and Organizational Behavior, Indiana University Graduate School of Business
1966-1971	Associate Professor of Organizational Behavior, Indiana University Graduate School of Business
1968-1990	Founding Member, Board of Directors, Society of Organizational Behavior
1970-1971	Visiting Associate Professor, School of Business, University of Wisconsin—Madison
1971-1993	Professor of Organizational Behavior, Indiana University Graduate School of Business
1974-1976	Chairman, Professional Advisory Committee to the Governor of the State of Indiana
1976-1977	Distinguished Visiting Professor, College of Business and Commerce, University of Delaware
1976-1978	Member, Ad Hoc Industry Group, Washington, D.C.
1976-1993	Member, Board of Editors, Journal of Organizational Behavior and Human Decision Processes
1977-1993	Member, Board of Editors, Journal of Organizational Behavior Management
1978-1985	Founding Member and Chairman, Teacher Excellence Committee
1993-present	Emeritus Professor, Organizational Behavior and Leadership, Indiana University Graduate School of Business
1999-2003	President, Grassroots United

Selected Publications

Scott, W. E., Jr. (1958). How effective is your testing program? *College and University Personnel Journal*, 4, 1-6.

Scott, W. E., Jr. (1959). The validity of the interview. *College and University Personnel Journal*, 5, 3-9.

Scott, W. E., Jr. (1964). The actuarial-clinical controversy in managerial selection. *Business Horizons*, Winter, 89-100.

Scott, W. E., Jr., & Day, G. J. (1972). Some relationships between broadly defined personality dimensions and vocational interests among graduate business students *Journal of Counseling Psychology*, 19, 30-36.

Scott, W. E., Jr. & Cummings., L. L. (1973). *Readings in organizational behavior and human performance* (2nd Ed.). Homewood, Illinois: Richard D. Irwin, Inc.

Scott, W. E., Jr. (1975). The development of knowledge in organizational behavior and human performance. (Monograph). *Decision Sciences*, 6, 142-165.

Scott, W. E., Jr., & Podsakoff, P. M. (1985). *Behavioral principles in the practice of management*. New York: John Wiley & Sons, Inc.

Podsakoff, P. M., Williams, M. L., & Scott, W. E., Jr. (1987). "Myths" of employee selection systems. In R. S. Schuler & S. A. Youngblood (Eds.), *Personnel and human resources management* New York: West Publishing Company.

Scott, W. E., Jr. (1987). Leadership and organizational behavior from the point of view of a behaviorist. In R. Aldag & T. M. Stearns (Eds.), *Management*. Cincinnati: Southwestern Publishing Company.

Scott, W. E., Jr. (2000). "On the performance of Indiana's public schools: What needs to be done. What must be done." (Unpublished Manuscript).

full list of Publications, Papers Presented, Symposia, Colloquia, and Other Invited Addresses is available upon request.

Brigitta M. Powers

Experience

June 2015—Present **Bloomington Classical** **Bloomington, IN**
Teacher

- Teaching liberal arts classes to home-schooled high school students.

September, 2009—April, 2015 **Classical Conversations** **Bloomington, IN**
Tutor

- Facilitating learning in all subjects through lectures, research, debate, and discussion for home-schooled high school students.
- Teaching grammar and writing to home-schooled middle school students.

August 2005—July 2011 **Indiana University** **Bloomington, IN**
Copy-editor

- Editing print and online academic bulletins for spelling, grammar, style, and content.

August 2002—May 2005 **Indiana University Press** **Bloomington, IN**
Advertising and Exhibit Manager

- Creating and executing the advertising plans and display schedule for all new and recent books.

Education

August 1996—May 1999 **University of North Carolina at Chapel Hill** **Chapel Hill, NC**
Bachelor of Arts in Ancient Mediterranean Religions

References

References are available on request.

Curriculum Vitae
Linda Coughlin Murphy
1106 E. Benson Court, Bloomington, Indiana 47401
Phone: (202) 285.5384 lishmurphy@gmail.com

EDUCATION

The George Washington University, Washington, DC August 2003-June 2006
The Columbian School of Arts and Sciences
Master of Arts in Speech & Hearing Science

University of St. Thomas, St. Paul, Minnesota August 1996-July 2000
Bachelor of Arts in Sociology
Minor in Justice and Peace Studies

WORK EXPERIENCE

Richland Bean Blossom School District, Ellettsville, Indiana October 2013-December 2013
Short-Term Contract
Speech Language Therapist, Consultant

- Conducted evaluations and wrote reports of preschool aged students who had previously been identified as potentially needing speech/language services.
- Participated and assisted in IEP meetings with support staff and caregivers.

The Ivymount School, Rockville, Maryland August 2007-February 2011
Speech Language Therapist

- Provided individual, small group, and/or large group therapy to students in High School (ages 14-18) and Post-High School (ages 18-21) through the Multiple Learning Needs Program at this non-profit school for students with special needs.
- Met weekly with the classroom team to discuss students' progress and plan lessons to support the curriculum and IEP goals
- Worked with students through formed groups, such as: social skills, apartment (cooking and daily living skills), computer lab, academic groups, and problem-solving/advocacy.
- Attended community outings with students, working on communication skills across different settings.
- Visited and consulted at the various jobsites where Ivymount students work/intern.
- Supported and collaborated with a staff that included special education teachers, occupational therapists, speech language therapists, social workers/psychologists/counselors, behavioral specialists, employment coordinators, transition specialists and job coaches. Ivymount staff on related speech and language topics
- Worked with assistive technology devices for students
- Attended IEP meetings and parent conferences

Education Based Services August 2006-August 2007
Pacifica School District, *Pacifica, California*
Clinical Fellow, Contractor

- Completed clinical fellowship year as a speech-language pathologist. Provided assessment and treatment of elementary and middle school students with a range of language learning disabilities and disorders, articulation and phonological disorders, fluency disorders, voice deficits, Autism and Asperger Syndrome. Also collaborated with general education and resource teachers, school principals, administrative staff, psychologists, occupational therapists, social workers and families.

CLINICAL EXPERIENCE

Practical clinical experience was gained through four-month long rotations in the following eight sub-clinics:

- Aural Rehabilitation: January-May 2006
- Fluency: September-December 2005
- Developmental Speech and Language: May-August 2005
- Voice: May-August 2005
- Communication Enhancement for Pediatrics and Adults: January-May 2005
- Early Intervention/Neurologic Pediatrics: September-December 2004
- Audiology: September-December 2004
- Neurologic Communication Disorders: September-December 2004

ADDITIONAL CLINICAL-RELATED EXPERIENCE

Accotink Academy, Springfield, Virginia

Intern

- Facilitated assessments and individual therapy for a caseload of elementary, middle and high school aged children with learning and emotional disabilities.
- Prepared and implemented Individualized Education Plans (IEPs), developed appropriate language goals, as well as collaborated with a team of speech-language therapists, special education teachers, art therapists, caregivers and other faculty and staff to best meet each student's unique needs through this specialized school setting.

Arlington County Public Schools, Arlington, Virginia

September-December 2005

Washington-Lee High School

Intern

- Through the general education setting, worked in collaboration with the school speech-language therapist to provide speech and language services for a diverse group of students with the following deficits/impairments: specific language impairments (SLI), language learning disabilities (LLD), Autism spectrum disorder, brain injury and resulting cognitive delays, articulation and phonological disorders, fluency disorders, hearing impairments, and emotional disabilities.
- Participated in a "life skills" group in collaboration with speech therapists and an occupational therapist that included students with Cerebral Palsy and Mental Retardation.

Private Families, Washington DC & Potomac, Maryland

June-September 2004

- Certified in Applied Behavioral Analysis (ABA)
- Received instruction and implemented elements of B.F. Skinner's Analysis of Verbal Behavior (AVB)
- Applied skills and experience gained to treat three children with Autism.

JAZZMIN VEGELER
3212 N. O'BRIEN PL
BLOOMINGTON, IN 47404
260-403-1645
JAZZMIN.VEGELER@GMAIL.COM

SUMMARY OF QUALIFICATIONS

- Ten plus years of experience working with children.
- Proven interpersonal skills, having previously worked with clients and professionals.
- Self -motivated and organized.
- Planned and implemented activities for a skills based therapy program.
- Currently homeschool children in the Classical model.

EDUCATION

INDIANA UNIVERSITY-PURDUE UNIVERSITY, Ft. Wayne, IN

Bachelor's degree in Psychology, 2004

EXPERIENCE

MEADOWS HOSPITAL- Bloomington, IN

Mental Health Technician

Work in a residential treatment program for adolescents. Observe patients' behaviors, log their condition, and lead them in therapeutic and recreational activities. Communicate with therapists and doctors about patients treatment work. March 2014- Current

KATZ-HOUSWORTH HOUSEHOLD- Bloomington, IN

Nanny

Cared for a pre-school aged child. Organized and scheduled daily activities. Assisted child in daily self-care. Responded to, and altered daily plans based on child's needs. Communicated daily concerns and successes with parents. . August 2006- May 2008

PARK CENTER INC. – Family Education Center, Fort Wayne, IN

Case Manager II

Led skills based therapy room. Worked directly with clients to address and help correct behavioral concerns. Planned and implemented daily activities for clients. Responsible for recording and logging clients' behaviors and activities. Corresponded with therapists and case managers to ensure optimal treatment plans. March 2005-November 2005

Kevin L. Davis

17054 Kirklin Dr., Westfield, IN 46074 - Phone: (317) 945-7723 - E-Mail: kdavis14@me.com

Owner / CEO – Indiana Charters LLC

2014-present

Provides educational and operational support services for independent, Indiana charter schools

Vice President and COO of the Indiana Public Charter Schools Association

2012 – 2013

Interim Executive Director August – December 2013

Managed day-to-day operations of IPCSA staff

Led development and rollout of multiple member services

Provided support and technical assistance in all areas of charter school development and operation

Led the association in its grant partnership role with the Walton Family Foundation startup grants

President / CEO Options Charter Schools (Carmel and Noblesville, IN)

2002 - 2012

Co-authored conversion charter school application for Options Charter School - Carmel

2002

Co-authored and led team through application for initial authorization through Ball State University

2004

Co-authored and led team through new school application for Options Charter School – Noblesville

2006

Created Options in Education Foundation for support of educational options through alternative education

2007

Created special education cooperative for the Options Charter Schools

2007

Created and led central office model for cooperative management of the Options Charter Schools

2008 - 2012

Authored and led team through successful reauthorization of Options Charter School Carmel and Noblesville

2010 and 2012

Principal Matrix Alternative School, Carmel Clay Schools

1999 - 2001

Developed and led community based, highly personalized alternative education program

Principal Carmel Junior High School

1998 - 1999

Principal Speedway Junior High School

1994 - 1998

Assistant Principal Carmel Junior High School

1990 - 1994

Teacher of English and coach Carmel Junior High School

1981 - 1990

Education

Indiana University

1984 - 2007

Coursework beyond M.S., secondary administration

Indiana University

1981 - 1984

M.S. secondary administration

Ball State University

1977 - 1981

B.A. English

Skills and Expertise

Charter school management, non-profit management, school administration, charter school advocacy, youth mentorship, high school internships, service learning, community development, alternative education, school finance, educational technology, grant writing, charter school accountability models, school management processes, educational and organizational leadership, fundraising, project management, school finance, education reform advocacy, policy implementation practices

Additional Experience and Honors

Vice chair of the Indiana Consortium of Charter School Leaders

2012

BSU Charter School Proposal Review Team

2010 - 2011

Presenter: National Association of Secondary School Principals	1994
Led Carmel / Seikyo Gakuen school exchange and sister city project	1990 - 1994
Authored nationally recognized Letter in Reading program and accompanying software	1981 - 1985

Resume of Laurie L. Serak

Education

Butler University—Indianapolis, Indiana—EPPSP Group 15
Administrative Certificate and Masters Degree—December 1997

Indiana University—Indianapolis, Indiana
Bachelor of Science—Education—May 1991

Indiana University—Bloomington, Indiana
121 Hours Completed—School of Business—1981

Experience

Indiana Charters LLC - June 2014 —Present
Consultant

Ball State University—January, 2008—June, 2014
Office of Charter Schools—Field Representative

North Park Academy Private School—July 2006—January, 2008
CEO / Head of School

GEO Foundation—April, 2005—June, 2006
Grades 6-12 Founding Principal of Fountain Square Charter School

Northwest Hendricks Community Schools—July, 2001—May, 2003
Elementary Principal

Franklin Community Schools—July, 1998—June, 2001
Elementary Principal

Laurie L. Serak
1371 Bur Oak Ct.
Avon, Indiana 46123
(317) 626-7072
serakl@yahoo.com

Accomplishments

Most Recent Post: Field Representative—Ball State University—Operational Initiatives:

Established positive relationships with school and board personnel of twenty-one assigned schools.

Developed protocol for school visits.

Wrote and published: New Board Member Manual, New Principal Manual, Field Representative Guide Book

Organized and facilitated the Office of Charter Schools Summer Institute (Conference). Organized and facilitated Charter School Law (Conference). Organized and facilitated board development and training through Brian Carpenter.

Worked effectively with the Office of Charter School staff to write and implement policy.

Chaired the committee to conduct a school audit.

Served as the liaison between the Office of Charter Schools and IDOE as well as IPCSA.

Established positive relationships with local political constituents.

Effectively assisted organizing groups in developing proposals for prospective charters.

Accomplishments

As a school administrator:

I have been a school administrator for a public, private, and public charter school in rural, suburban, and urban settings.

Proficient in grant writing.

Have written curriculum and developed scope and sequence in alignment with state standards

Chaired school visits through Advanced Ed. (North Central Accreditation)

Have successfully developed and facilitated capitol projects initiatives.

Facilitated top rankings in ISTEP at both Pittsboro and Union Elementary Schools.

Have conducted workshops on communication skills and brain compatible research as it applies to the classroom.

Developed working relationship with Franklin College.

I am a certified School Safety Specialist through IDOE — I have implemented the concepts by Ruby Payne (Children of Poverty), and certified Union Elementary as a C.L.A.S.S. school.

Professional Affiliations

NACSA (National Association of Charter School Authorizers), IPCSA (Indiana Public Charter School Association), IASP (Indiana Association of School Principals), IPLA (Indiana Principal Leadership Academy Group 34), ACD (Association for Curriculum and Development), Phi Delta Kappa Academic Sorority, ISD (Indiana Staff Development Council), ISC (Indiana Safety Council)

11208 Harriston Drive
Fishers, IN 46037
Cell Phone 312-259-8093
briandandersonconsulting@gmail.com

Brian D. Anderson

Professional experience

Present Brian D. Anderson Consulting Fishers, IN
Owner

- Provide business consulting services to charter schools, charter school authorizers, and nonprofit organizations
- Consulting services include financial monitoring, facilities financing projects, fund development, customized board training, strategic planning, business oversight, and charter authorizer application reviews

2012-2013 Bookkeeping Plus, Inc. Greenfield/Indianapolis, IN
Director of Strategic Planning – Charter Schools

- Analyze business needs of charter schools in Indiana
- Provide strategic planning services for charter school boards and leaders
- Lead charter schools through facility assessment and facility financing process
- Assess feasibility of expanding company service offerings to charter schools
- Develop new financial reporting tools for client charter schools

2011 - 2012 Ball State University Muncie/Indianapolis, IN
Fiscal Analyst

- Provide financial oversight and leadership to the 40 charter schools authorized by Ball State University
- Develop and implement new financial metrics for the schools
- Develop and direct long-range financial strategy for BSU Office of Charter Schools
- Provide technical assistance in the areas of finance and governance for charter schools authorized by BSU
- Lead collaboration efforts regarding charter school fiscal issues with other authorizers in the State of Indiana

2009 – 2011 IFF

Chicago, IL

Assistant Director of School Services

- Identify charter school facility and financing needs in the Midwest
- Establish and manage relationships with charter schools, charter school authorizers, state departments of education, and other charter school stakeholders in the Midwest
- Evaluate and make recommendations on charter school loan applications, based on financial and other organizational metrics
- Develop and execute lending goals for IFF school services
- Provide technical assistance to charter school business operators
- Evaluate financial and governance sections of charter applications for Chicago Public Schools (CPS)
- Participate in the development of financial metrics for charter schools authorized by CPS
- Evaluate charter school applications for the National Association of Charter School Authorizers (NACSA)

2005 – 2009 (Employee 2005-07; Contractor 2007-09)

Colorado Department of Education

Denver, CO

Consultant, Schools of Choice Unit

- Run the Colorado Charter School Business Managers Network
- Read, evaluate, and make recommendations for charter applications submitted to the Colorado Charter School Institute (statewide authorizer)
- Provide technical assistance to all interested parties in the state of Colorado regarding charter school, private school, and home school issues
- Conduct seminars and individual training for school business managers, board members, and administrators in the area of school business management
- Administer the Federal Grant Programs for the state of Colorado
- Conduct grant writer trainings
- Conduct charter school application trainings for new charter school developers and for existing and potential charter school authorizers
- Research and interpret education laws and regulations for interested parties
- Write guides, instruction manuals, and other communication for publication on state website and for distribution to different segments of the education sector in Colorado

2000 – 2007

Owner, Colorado Business and Accountability Services (C-BAS)

- Perform business and accounting services for schools and non-profit organizations on a contract basis, including all aspects of accounting, auditing, budgeting, planning, and fundraising
- Consult with several charter schools on financial matters directly and through the Colorado Department of Education and the Colorado League of Charter Schools
- Provide training to school business managers on financial and human resources matters
- Perform research and write reports on various charter school and education-related financial and policy issues for interested parties
- Run all aspects of a small business, including marketing, operations, payroll, tax preparation, financial statement preparation, budgeting, development, etc.
- Interpret financial policies and make recommendations for proper financial management within the context of complex regulatory requirements

2000 – 2001

Colorado State Legislature

Denver, CO

Legislative Budget Analyst/ Joint Budget Committee

- Prepare and present recommendations on budget requests from the Governor's Office and the Department of Regulatory Affairs to the Legislative Joint Budget Committee
- Analyze fiscal impacts of proposed legislation
- Draft fiscal notes to attach to bills introduced in the House of Representatives and the Senate
- Write sections of the annual appropriations bill that sets the State's budget for the following year
- Write various reports for legislators regarding issues related to the State budget
- Research budget-related questions for legislators and the public

1996 – 2000

Cherry Creek Academy

Englewood, CO

Business Manager (Continued as a C-BAS client through 2006)

- Responsible for business functions of a K-8 charter school
- Perform all accounting functions including purchasing, payroll, cash receipts, and G/L and financial statement preparation
- Prepare and monitor annual budget and cash flow projections
- Design and implement all internal control procedures
- Perform human resources functions for staff of 35
- Responsible for annual audit at the end of each fiscal year

- Serve on the school's long-range planning and finance committees
- Serve as Secretary/Treasurer of CCA Foundation
- Responsible for securing financing and overseeing building of school
- Coach basketball and provide oversight for school's athletic program

1993 – 1996 University of California, San Diego La Jolla, CA

Financial Reporting Specialist, Extramural Funds Accounting

- Interpret agency and university policies to ensure compliance with terms and conditions of governmentally funded awards
- Perform post-award financial administration of various contracts and grants, including preparing financial reports for government agencies
- Review and interpret award documents and act as liaison between university researchers and governmental agencies
- Responsible for administration of clinical and research laboratories in the School of Medicine, Department of Pediatrics

Education

1986 – 1990

North Park University

Chicago, IL

Bachelor of Arts

- Major: Accounting
- Minor: Spanish

Other

Current Board Membership

- Indiana Charter Network
- Indiana Cyber Charter School

Past Board/Committee Membership

- Inspire Academy, Muncie, IN
- Polaris Charter Academy, Chicago, IL
- Highline Academy, Denver, CO
- CCA Foundation, Englewood, CO

Phillip W. Kilgore

Professional Qualifications

30 years experience in organizational, project, personnel, and financial management in

- education
- management consulting
- process and quality engineering
- system security engineering
- criminal and counterintelligence investigations and auditing
- communications-electronics

applied in domestic and international environments with worldwide geographically separated units.

Education

Bachelor of Science - American History, United States Air Force Academy, 1984

Experience

Jan 10-present: Director, Barney Charter School Initiative

Hillsdale College

Hillsdale, Michigan

Leads an initiative to assist groups of citizens to establish K-12 charter schools that embody the educational philosophy of Hillsdale College. Principle activity includes cultivation of capability within school founding boards, curriculum design, charter application development, school leader search and training, teacher training, teacher evaluation and coaching, school mission support.

Aug 05-Jan 10: Senior Manager/ Senior Consultant/ Consultant

Accenture National Security Services (formerly George Group Consulting)

Arlington, Virginia

Led a team of 12 consultants delivering operations assessment and improvement analysis, client coaching and project management for federal organizations. At one client, developed and maintained flag and senior executive client relationships in government offices, advising them on approach and deployment of consultant/client team collaboration and project execution, resulting in over \$500M in savings. Beyond financial impact, guided his consultants and the client in positively impacting military weapons systems readiness through improvement in logistics and acquisition activities. Success with his clients led to Accenture's high referenceability and record revenues from a single account. Gave presentations at senior levels, including the Deputy Secretary of Defense and 60 of his most senior Pentagon leaders. His knowledge and expertise was also transferred to many client personnel through his role in formal classroom instruction and small team coaching. Supporting strategic corporate business interests, led the overall capture efforts for several major business pursuits in response to government Requests for Proposal.

Jul 96-Aug 05: Quality Manager and Six Sigma Black Belt
Honeywell Technology Solutions, Inc. (formerly AlliedSignal Technical Services Corp.)
Colorado Springs, Colorado

Built and led a group of 41 personnel (from an original team of 5) and managed associated budget of \$5.2M responsible for independent assessment and quality control of operations performed by 750-person Systems Engineering, System Architecture, Development Engineering and Technical Maintenance organization delivering hardware and software products and services for the Air Force Satellite Control Network. Managed functions and personnel in the following areas:

- Six Sigma Process Management and Statistical Analysis
- Quality Engineering/Quality Assurance
- Software Verification and Validation
- Site Engineering Integration activities at 11 worldwide remote operating locations of the Air Force Satellite Control Network
- Employee Training Administration

Implemented the six sigma process improvement methodology for all site functions. He trained and mentored six sigma green belt teams and efforts of three subordinate black belts. Deployed design for six sigma in hardware and software engineering functions as well as standard six sigma practices for Purchasing, Finance, Human Resources, and Safety, resulting in the lowering of defect rates in key performance areas. Developed metrics reporting practices for all functions including Engineering (hw & sw), Finance, Purchasing, Configuration Management, Documentation, and Maintenance. Established a program management dashboard for executive assessment of program status. Implemented and subsequently managed an ISO 9000-based quality system and organization, achieving ISO 9001 certification in less than nine months from the beginning of quality system development. Successfully integrated multiple quality and business models with ISO 9000 such as Software Engineering Institute's Capability Maturity Model, Baldrige Criteria for Performance Excellence, Six Sigma, and Total Quality. Established software verification/validation capability, documenting newly defined processes to heighten quality of software. Stood up a newly established site integration function at 11 worldwide locations, directly servicing operational Air Force commanders. Through his focus on employee training, automated employee training administration, creating a database to define training requirements, track training accomplishment, and generate status reports, servicing over 50 supervisors. Wrote key content sections for several major business pursuits in response to government Requests for Proposal.

Apr 93-Jul 96: Lead System Security Engineer
AlliedSignal Technical Services Corporation
Colorado Springs, Colorado

Performed risk analysis and security testing on automated information systems to ensure optimum security of system was maintained appropriate to threat and vulnerability. Achieved security accreditations for sensitive government systems and developed and deployed the system security program for overall site operations. Stood up and led a system security engineering staff to successfully engage a growing system security engineering workload.

Dec 86-Sep 92: Investigative Officer
United States Air Force Office of Special Investigations
Korea/United States/United Kingdom

Conducted criminal and counterintelligence investigations in Korea, serving as second officer to the AFOSI Detachment Commander. Served as AFOSI Detachment Commander for an Air Force Base in Texas, leading a team of five investigators in solving property crimes, crimes against persons, narcotics offenses, as well as security investigations. Served as Chief of Counterespionage Operations for an AFOSI District with jurisdiction over half of Europe. Through all these responsibilities, developed and refined his ability to quickly determine facts and circumstances surrounding incidents in a variety of administrative and operational environments. Gathered field intelligence responsive to national collection requirements and prepared reports of investigation and counterintelligence information reports, and reviewed the reports of subordinate investigators for release. Presented case briefs to offices of U.S. Attorneys, District Attorneys and Air Force Judge Advocates General. Conducted numerous criminal and security threat awareness briefings to Air Force personnel.

Mar 85-Dec 86: Telecommunications Officer
United States Air Force
Langley AFB, Virginia

Managed telephone operations, telecommunications requirements, customer service operations, and telecommunications plans and programs for all operations at Langley AFB, including HQ Tactical Air Command. Under a pressurized and critical customer service scenario supporting HQ Tactical Air Command, led a successful \$5M telephone switch upgrade project, cited as the most trouble-free implementation of its kind to date by HQ Air Force Communications Command.

Certifications/Professional Memberships

Certified Lean Six Sigma Master Black Belt, Accenture
Certified Six Sigma Black Belt, Honeywell
Certified Quality Manager, American Society for Quality
Past Chair, American Society for Quality Section 1312

Security Clearance

Past (Air Force): TS/SCI with counterintelligence security polygraph (lifestyle)

Rebecca Anne Fleming
804 Woodstock Lane, Tecumseh, MI 49286
rfleming@hillsdale.edu

Professional Experience:

Hillsdale College, Hillsdale, MI (2014-present)

Assistant Director of the Barney Charter School Initiative:

- Work with the Director to support the founding of classical charter schools by assisting in creating and implementing the schools' academic programs.
 - Review draft charter applications from the founding groups and prepare feedback
 - Respond to public inquiries about the initiative
 - Design and implement search methods to identify school principal candidates
 - Acquire and manage a curriculum library
 - Create generic class schedules
 - Make arrangements for teacher training and curriculum support
 - Manage the execution of written agreements with schools

The Vanguard School at Cheyenne Mountain Charter Academy, Colorado Springs, CO (2009-2013)

Science Department Chair, (November 2011-December 2013)

- Oversaw, aligned, and maintained curriculum standards for all seventh through twelfth grade science classes:
 - Seventh and eighth grade Core Knowledge science courses
 - Seventh and eighth grade science electives: Health Science and Geology
 - High school biology, chemistry, and physics courses (both honors and AP levels for all courses)
 - High school science electives: Scientific Inquiry, Anatomy and Physiology
- Collaborated with other department chairs to align curriculum standards across grade levels
- Collaborated with other department chairs and the administration to improve institutional policies and procedures
- Contributed to the hiring process of prospective science teachers by accompanying the Executive Director on recruiting trips, including the Hillsdale Classical School Job Fair, participating in interviews, and communicating with candidates throughout the recruiting process

Secondary Science Teacher

- Effectively instructed students within the classical, liberal arts and sciences curriculum of The Vanguard School
- Developed and maintained curriculum and instructional materials for high school and junior high science courses:
 - Honors Biology (August 2009-December 2013)
 - AP Biology (August 2010-May 2011; August 2012-December 2013)
 - Seventh Grade Science (August 2009-May 2012)

Director of Student Activities, (August 2013-December 2013)

- Organized school service and social activities, developed student leaders and advised them regarding the planning and execution of events

Class Advisor, (August 2010-December 2013)

- Advised three class senators and three senior student government officers through their various social and service activities

- Organized and executed the Baccalaureate and Graduation ceremonies (May 2013, August 2013-December 2013)

Educator Effectiveness Council, (August 2011-December 2012)

- Served on the faculty committee that designed and implemented the school's teacher evaluation system, in accordance with Colorado Senate Bill 191

Education:

Bachelor of Science, Biology, Hillsdale College, Hillsdale, MI (2005-2009)

Cum laude (3.549 GPA), Chemistry minor, May 2009

- LAUREATES Award (Natural Sciences research grant) for Summer 2008
- Student Activities and Honorary Society Organizations:
 - *Hillsdale College Swim Team*-NCAA Division II
 - *Kappa Kappa Gamma Sorority*
 - *Omicron Delta Kappa*-Leadership Honorary
 - *Lamplighters*-Senior Women's Leadership Honorary
 - *Beta Beta Beta*-Biology Honorary
 - *Sigma Zeta*-Science and Math Honorary
 - *Student Athlete Advisory Committee* (SAAC)

Professional Development:

Dale Carnegie Leadership Training (September 2012-November 2012)

- Completed the eight-week workshop on effective communication, human relations, and skills for success
- Received the Breakthrough Award for persuasive and passionate communication

Colorado Department of Education Anchor Review of the Transitional Colorado Assessment Program (TCAP) (April 2012)

- Completed a two-day workshop with other Colorado science teachers to review items from the completed TCAP assessment, score sample items, provide guidance which defined student performance levels for each item, and refine scoring guidelines for each item

Colorado League of Charter Schools Rigorous Curriculum Design Training (October 2011)

- Completed a two-day seminar that explored a model for the development of a dynamic curriculum, fully aligned to state standards, including matching assessments

College Board-endorsed AP Biology Summer Institute (July 2011, July 2013)

- Completed a week-long training session on effective teaching methods, assessment development, and laboratory activities for the AP Biology course at the University of Northern Colorado

College Board-endorsed AP Biology Workshop (October 2010, October 2012)

- Completed a day-long seminar overview of the AP Biology course and curricular changes in 2012

Other Work Experience (part-time and summers):

Piano Teacher for multiple elementary and middle school students, Colorado Springs, CO (May 2013-December 2013)

Tutor for multiple junior high and high school students (public, private, and homeschooled), Colorado Springs, CO (October 2009-December 2013)

- Tutored students in junior high math, science, and history
- Tutored students in high school biology and chemistry

Kids' Camp Director and Assistant Pool Manager, Garden of the Gods Club, Colorado Springs, CO (summer 2011-summer 2013)

- Supervised and organized summer day camp for children ages 5-12 and performed managerial duties on the weekends
- Taught swim lessons as requested by families

The Country Club of Colorado Swim Lesson Instructor, Colorado Springs, CO (summer 2010)

- Taught group and private swim lessons for children ages 3-12 and worked the front desk of the aquatics department

Volunteer Experience:

Hillsdale College Alumni Volunteer Program (August 2009-present)

- Participated in Alumni Admitted Applicant Volunteer Campaign by writing letters and e-mails to admitted, but not yet committed, students to Hillsdale College
- Attended and spoke at Hillsdale College Admissions Presentations in Colorado Springs, CO (Spring 2010-present)

Kappa Kappa Gamma Sorority Advisor

- Delta Zeta Chapter, Colorado College, Colorado Springs, CO (August 2009-August 2013)
- Kappa Chapter, Hillsdale College, Hillsdale, MI (January 2014-present)

Pianist/Organist

- Served in the following capacities at The Vanguard School Colorado Springs, CO (2009-2013)
 - Accompanied the junior high and high school choirs (2009-2013)
 - Rehearsal pianist for *Fiddler on the Roof* (2009-2010)
 - Rehearsal and performance pianist for *The Sound of Music* (2010-2011)
- Played for Masses at the following churches:
 - St. Dominic Chapel, Clinton, MI (July 2014-present)
 - St. Anthony Catholic Church, Hillsdale, MI (2005-2009, January 2014-present)
 - St. Paul Catholic Church, Colorado Springs, CO (2010-2011)
 - Corpus Christi Catholic Church, Colorado Springs, CO (2009-2010)
- Accompanied the Hillsdale Academy Choir, Hillsdale, MI (2005 -2009)

Assistant High School Track Coach, The Vanguard School, Colorado Springs, CO (2010)

Attachment 2

Identify the Principal/Head of School candidate and explain why this individual is well-qualified to lead the school in achieving its mission. Summarize the proposed leader's academic and organizational leadership record. Provide specific evidence that demonstrates the leader's capacity to design, launch, and manage a high-performing charter school. If the proposed leader has never run a school, describe any leadership training programs that he/she has completed or is currently participating in. Also provide, as Attachment 2, the qualifications and resume for this individual. If no candidate is yet identified, explain your timeline, criteria, and process for recruiting and hiring the school leader.

Timeline and process for recruiting and hiring the Seven Oaks Classical School Headmaster

The Seven Oaks founding board has begun its search for a headmaster candidate. The goal is to have a headmaster in place by the beginning of February 2016. Suitable candidates have been explored and one in particular has been identified. Dr. Stephen Shipp is the Interim Assistant Headmaster for the Grammar School at Founders Classical Academy of Lewisville. After discovering classical education as an undergraduate student at Patrick Henry College, he earned an M.Litt. in Ancient History from the University of St. Andrews in 2007 and a Ph.D. in Politics from the University of Dallas in 2014. He has received academic fellowships from the Earhart Foundation, the Intercollegiate Studies Institute, and The Claremont Institute, and has delivered numerous papers in the fields of history, literature, and politics. Dr. Shipp has taught students at every level, ranging from the first grade to undergraduates at the University of Dallas. For the past six years, he worked as a teacher and an administrator at The Cambridge School, a classical Christian college-preparatory school in north Dallas. As Faculty Coordinator, he started the Cambridge Lyceum to give faculty an opportunity to share the fruits of their scholarship with the broader community. He also helped to launch the Nobility and Public Service series, which provided civil and political leaders a platform to speak into the lives of students. Dr. Shipp joined Responsive Education Solutions, Inc., in the summer of 2014 to train to be a headmaster. His role has also involved laying the groundwork for future expansion in Indianapolis. His wife, Sarah, is a native Hoosier, and they visit with their five children every summer. Dr. Shipp has shown great interest in the headmaster position for Seven Oaks Classical School, however it has not yet been determined whether he will be offered the position.

For all appropriate candidates, the Founding Board will be assisted in this process by Hillsdale College's Barney Charter School Initiative. The Initiative assists classical charter schools in finding suitable leaders. The Initiative was specifically chosen for multiple reasons, one of which is to ensure that candidates have a solid understanding of classical education, and a dedication to the liberal arts and the teaching of civics. Preferred candidates will have a master's degree,

teaching experience at the K-12 or college level, a record of leadership, and demonstrated abilities in speaking and writing.

Our headmaster will hold the following responsibilities:

- accountability to the governing board
- work in partnership with the board to hire teachers
- implementing a classical liberal arts and civic-minded curriculum
- establishing a distinctive school culture that values scholarship and excellence
- maintaining a healthy enrollment
- ensuring financial responsibility

In addition, he/she will work to foster an understanding of liberal arts education and the virtues of school choice among parents and the larger community. In all of his/her work, he/she will draw upon the advice and experience of Hillsdale College faculty involved in the charter school initiative.

Stephen Shipp, Ph.D.

880 River Oaks Dr.
Fairview, TX 75069

stephen.shipp@gmail.com
m: (940) 222-0547

EDUCATION

Ph.D., Politics 2014

Institute of Philosophic Studies, University of Dallas, Irving, TX

Dissertation: "Liberty Despite Equality: Publius and Tocqueville's New Sciences of Politics"

M. Litt. (with Distinction), Ancient History 2007

School of Classics, University of St Andrews, Scotland

Thesis: "Athens and the American Founding: Traditions and Innovations in Democracy"

B.A. (Magna Cum Laude, with Honors), Public Policy 2005

Patrick Henry College, Purcellville, VA

PROFESSIONAL EXPERIENCE

Interim Head of the Grammar School, Founders Classical Academy of Lewisville 2015

Teacher, 11th Grade Government, Founders Classical Academy of Lewisville 2014

Headmaster in Training, Responsive Education Solutions 2014-2015

Director, Faculty Lyceum, The Cambridge School of Dallas 2013-2014

I created a symposia series for faculty and guest speakers to showcase the major academic disciplines at the school and to explore the relationship of those disciplines to classical and Christian education.

Faculty Coordinator, The Cambridge School of Dallas 2011-2014

I oversaw the Departments of History, Government, Philosophy, and Theology, mentoring new teachers, writing job descriptions, reviewing curricula, conducting performance reviews, and facilitating dialogue between teachers and administration.

Coordinator, Nobility and Public Service Series, The Cambridge School of Dallas 2012-2014

I helped create the Nobility and Public Service series to give social and political leaders an opportunity to speak into the lives of students. Guests included Tom Leppert, the former mayor of Dallas, and Ken Starr, President of Baylor University.

Professor of History and Government, The Cambridge School of Dallas 2008-2014

I taught courses in United States History, U.S. Government, and Political Philosophy, to juniors and seniors. The government courses were of my own design.

Adjunct Professor of Politics, University of Dallas 2011

Taught "Principles of American Politics," part of the undergraduate core.

Web Developer and Technology Instructor, Trinity Christian School, Fairfax, VA 2005-2007

Served as principal art manager, assistant content editor, and first-line maintenance during a ground-up redesign of the school's web site in cooperation with a professional education site design service.

Set-up and maintained a computer lab. Taught basic computer skills to students in the 1st-6th grades.

White House Intern, Office of Strategic Initiatives, Washington, D.C. 2003

Law Clerk, Appeals Division, Office of the Attorney General, Indianapolis, IN 2001

SCHOLARSHIP

Published Work

I wrote the entry on Alexis de Tocqueville for the forthcoming *World Democracy: From Ancient Times to the People's Revolutions of the 21st Century*, a two-volume encyclopedia edited by James Ciment that is to be published by M.E. Sharpe. 2012

Works in Progress

Education in the Tradition

A reader for classical Christian educators that seeks to illuminate the contemporary questions in education with the wisdom of the western tradition.

Papers Delivered

"Tocqueville on Making Mores: Statesmanship in an Age of Democracy," Southern Political Science Association (SPSA), New Orleans, LA 2014

"A Tale of Two Revolutions: Democracy and Freedom in America and France," Faculty Lyceum Series, The Cambridge School of Dallas 2014

"Tocqueville on Liberty." Guest lecture for a graduate course on Tocqueville, University of Dallas 2013

"The Pilgrim as Politician in the *City of God*," Institute of Philosophic Studies Colloquium, University of Dallas, Irving, TX 2010

"Homer's Hector and the Intractability of the Heroic Temperament," Institute of Philosophic Studies Colloquium, University of Dallas, Irving, TX 2009

"'Not Less but More Heroic': The Human Hero in Milton's *Paradise Lost*," Association for Core Texts and Courses (ACTC), Memphis, TN 2009

"Plutarchan Method in the *Pericles-Fabius*," Northeastern Political Science Association (NPSA), Boston, MA 2008

"'Democracy,' 'Republic,' and James Madison's New Rhetoric of Popular Rule," Federation Rhetoric Symposium 2008, Denton, TX 2008

"Didactic Intent in Aeschylus' *Persians*," presented as part of a panel entitled "Politics in Action: Drama as Political Theory," Northeastern Political Science Association (NPSA), Philadelphia, PA 2007

Select Other Academic Activities

Colloquium invited participant, "Liberty and Liberal Education," co-sponsored by the Intercollegiate Studies Institute and Liberty Fund, Inc., Mecosta, MI 2013

Colloquium invited participant, “Tyranny and the Defense of Liberty,” co-sponsored by the Intercollegiate Studies Institute and Liberty Fund, Inc., Omaha, NE	2010
Social Change Workshop for Graduate Students, Institute for Humane Studies Summer Seminars Program, Brown University, Providence, RI	2008
Participant, James Wilson Programme for Constitutional Studies, jointly supervised by the University of St Andrews Schools of Classics and International Relations	2007

COURSES TAUGHT

University of Dallas

Principles of American Politics (POL-1311)

Secondary Courses

Political Philosophy (12 th)	AP United States History (11 th)
United States Government (12 th)	United States History (7 th)
AP United States Government (12 th)	World Cultures and Geography (8 th)

LANGUAGES

Latin, translation level
French, reading knowledge
Greek, basic knowledge

DISTINCTIONS & FELLOWSHIPS

Selected by graduates to deliver Faculty Address, Commencement Exercises, The Cambridge School	2011, 2013
Salvatori Fellowship, Intercollegiate Studies Institute	2010-2011
Publius Fellowship, The Claremont Institute	2010
Graduate Travel Stipend awarded, Institute of Philosophic Studies, University of Dallas	2009
Earhart Fellowship, Earhart Foundation	2008-2010
Scholarship recipient, Dr. Ernest L Ransome III Scholarship Trust	2006-2007
Chairman, Academic Affairs Committee, Patrick Henry College Alumni Association	2006-2007
Semi-Finalist, Oral Arguments, National Intercollegiate Moot Court Competition	2003
Champion, Brief-Writing, National Intercollegiate Moot Court Competition	2003

SERVICE

Faculty Advisor, The Cambridge School of Dallas Senior Tutorial Competition	2008-2013
Sponsor, Alexis de Tocqueville Society, The Cambridge School of Dallas	2013
Coach, Lincoln-Douglas Debate Team, The Cambridge School of Dallas	2013
Judge, The Cambridge School of Dallas Senior Tutorial Competition	2012
Founding Member, Committee on First Principles, The Cambridge School of Dallas	2011-2012
Judge, The Cambridge School of Dallas Declamation Competition	2011
Board Member, Patrick Henry College Alumni Association	2005-2006
Founding Member and Vice-Moderator, Alexis de Tocqueville Society, Patrick Henry College	2003-2005

Headmaster Job Description

Immediate Supervisor: Governing Board

Job Goal: To manage the school and to provide organizational and instructional leadership to assure high student outcomes and maintain the integrity of the school's approved charter.

Performance Responsibilities: Note: At the discretion of the headmaster, he/she may delegate any of the authority and responsibilities of the position. However, the headmaster is not relieved of final responsibility for actions taken under such delegation.

I. Relationship with Governing Board/Committees

- Attends and participates in meetings of the Governing Board/Committees.
- Informs and advises the Governing Board/Committees about the programs, practices, and problems of the schools, as well as activities operating under the authority of the Governing Board/Committees.
- Implements Governing Board/Committees policies; advises the Governing Board/Committees when he/she identifies the need to add, modify, or delete a policy.
- Submits recommendations to the Governing Board/Committees relative to matters requiring Governing Board/Committees' action, supported by data and information as necessary to make informed decisions.
- Recommends, annually, to the Governing Board/Committees system-wide goals. Monitors and reports back to the Committee, at least semi-annually, on the progress toward achieving the goals.
- Works with the Governing Board/Committees that implements the mission of the school and a comprehensive long-range plan.

II. Budget

- Prepares annual operating budget recommendations based on guidelines set by the Governing Board/Committees. Works with the Governing Board/Committees to develop the final budget. Implements the approved budget.

III. Educational Leadership & Curriculum

- Assures high academic performance outcomes for all students.
- Keeps informed of current curricular and educational thoughts, trend, and practices, as well as proposed legislation impacting the school. Informs the Governing Board/Committees of significant developments in these areas.
- Oversees development and implementation of objectives and long-range plans for curriculum and instructional evaluation and improvement.
- Assures continuous study and revision of curriculum guides and courses of study to best support teacher needs.

IV. Personnel

- In conjunction with the Governing Board/Committees, ensures the hiring of qualified and competent personnel, including administrators, teachers, support staff.
- Assigns, transfers, and promotes employees as the interests of the school system may indicate.
- Assures professional development opportunities are provided to the school staff.
- Assures systematic performance evaluation of school personnel and takes necessary actions regarding any employee whose performance is judged to be unsatisfactory.
- Holds such meetings of school personnel as are necessary for discussion of matters related to the welfare and improvement of the schools.
- Oversees employee relations in the school system.

V. Facilities

- Hires custodial staff.
- In conjunction with the Governing Board/Committees, determines short and long-range building needs and oversees implementation of construction, operation and maintenance programs.

VI. General Management

- Takes necessary steps to assure the safety and welfare of students and employees in the schools and at school sponsored activities.
- Maintains records for the school, including financial accounts, business and property records, personnel, scholastic, and school population records. Acts as custodian of such records and all contracts, documents, securities, title papers, books, and other papers of the Governing Board/Committees.

VII. Communication/Public Relations

- Maintains open lines of communication and cooperative working relationships with the authorizer and partnering organizations.
- Maintains open lines of communication and cooperative relationships with school staff, the Governing Board/Committees, parents, and the community at-large.

Performs other appropriate tasks which may be assigned by the Governing Board/Committees.

1. Administer local board's (or governing body of a charter school's) policies, state and federal requirements and applicable laws;
2. Be accountable for student achievement, budget management, expenditure of fund, dissemination of information, charter school communications, attend all local board or governing body meetings or, when necessary, designate an administrator to attend;

3. Ensure that school patrons and the public are informed and involved in the acquisition, planning, and development of school facilities and that students are provided with adequate facilities which conform to state and federal mandates;
4. Be accountable for student safety:
 - (a) Ensure that all students are supervised while on school property and while attending or traveling to school events or activities on school-provided transportation;
 - (b) Ensure that all buildings, grounds, and facilities provide a safe and orderly environment for public use;
5. Administer and implement the charter school's approved staff accountability plan and procedures;
6. Ensure that a process is in place to identify, train, assign, and support personnel resources in classrooms, which shall include, but not be limited to, the following:
 - (a) Establish the specific expertise of the person;
 - (b) Obtain a background check and fingerprint records;
 - (c) Provide the person with a three-hour training, prior to entering a classroom, about how the school operates, appropriate teaching methods, and expectations of the headmaster and assigned teacher;
 - (d) Establish a start and end date for the person; and provide for an evaluation of services upon completion of the assignment.

Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job with or without reasonable accommodation:

- The employee must occasionally lift and move up to 25 pounds in supplies which requires bending, stooping, and lifting.
- The employee must use hands and arms to manipulate objects.
- The employee must use keyboards, tools and other controls.
- The employee must sit and stand for long periods of time.
- The employee will escort students around campus.
- The employee must have normal vision and hearing with or without aid.
- The employee must be able to move about assigned locations unaided during the work day.

Attachment 3

Describe the responsibilities and qualifications of the school's administrative/management team (beyond the school leader). If known, identify the individuals who will fill these positions and provide, as Attachment 3, the qualifications and resumes for these individuals. If these positions are not yet filled, explain your timeline, criteria, and process for recruitment and hiring.

Timeline and process for recruiting and hiring the Seven Oaks Classical School Assistant Headmaster

The Seven Oaks Founding Board has begun its search for an assistant headmaster candidate. The goal is to have an assistant headmaster by June 2016. The headmaster, in conjunction with the Seven Oaks Founding Board, will take on the role of hiring an appropriate assistant headmaster with the guidance of Hillsdale College's Barney Charter School Initiative. The Initiative assists classical charter schools in finding suitable leaders. This Initiative was specifically chosen to ensure that candidates have a solid understanding of classical education and a dedication to the liberal arts and the teaching of civics. Preferred candidates will have a minimum of a Bachelor's degree, teaching experience at the K-12 or college level, a record of leadership, and demonstrated abilities in speaking and writing.

Assistant Headmaster Job Description

Immediate Supervisor: Headmaster

Summary: Assists the Headmaster in all aspects of school management, curriculum development, and student services.

Essential Functions: Incumbent must achieve the following outcomes with or without reasonable accommodation:

- Develops, implements, and reviews school policies and procedures.
- Coordinate implementation of district instructional program, and ancillary and operational support programs.
- Serves as an instructional leader at the school.
- Monitors school activities and policies for adherence to all district, state, and national regulations.
- Assesses suitability of school services and programs.
- Recommends changes in programs, personnel, facilities, materials, and equipment.
- Evaluates the work of assigned school staff; provides reports to the headmaster and cooperates in recognition or remediation of staff members as requested.
- Designs in-service training programs at the school.
- Assists in the recruitment and selection of applicants for school-based positions.

- Establishes programs and communication procedures to encourage committee participation, student organizations, community support, and extra-curricular activities.
- Develops and maintains student discipline procedures for assigned caseload following established guidelines.
- Assists in the development of budget recommendations for the school.

Curriculum: Oversees all aspects of scheduling, course descriptions, and registration. Assigns duties as necessary, oversees all aspects of district mandated standardized testing, oversees all aspects of student records, and assists headmaster as legal representative for the school. Oversees textbook inventory; creates and serves on committees as necessary inside and outside of the school.

Attendance/Discipline: Establishes attendance and discipline referral and reporting procedures for campus-wide use; develops parental notification procedures; directs the preparation of suspension, neglect, referral, and tardy forms; responds to inquiries from welfare, probation, legal, and security agencies; creates and serves on committees as necessary inside and outside the school.

Building and Grounds: Supervise employees completing operational tasks on campus; verifies completion of work orders; maintains orderly school environment; contacts security as necessary; serves as contact for outside contractors; oversees custodial work; creates and serves on committees as necessary inside and outside of the school.

Duties: In addition to the essential functions of this job, the incumbent must perform the following duties:

- Complies with the Code of Ethics and upholds and enforces rules; administrative directives and regulations; school board policies; and local, state, and federal regulations.
- Articulates and facilitates the implementation of the mission and beliefs of Seven Oaks.
- Safeguards confidentiality of privileged information.
- Prepares, maintains, and completes accurate records and reports as required by law, state directives, district policy, and administrative regulations.
- Shares the responsibility for the supervision and care of district inventory; proper and safe use of facilities, equipment, and supplies; and reports safety hazards promptly.
- Maintains professional competence through individual and staff training, in-service educational activities, and self-selected professional growth activities.
- Attends and/or conducts staff meetings and participates on committees within their area of responsibility.
- Performs other tasks related to area of responsibilities as requested or assigned by an immediate supervisor.

Experience, Knowledge, Skills, and Abilities: The minimum expectations for this job are as follows:

- Effective communication skills, both verbal and written.
- Flexibility, organization, decision-making, and problem solving skills.
- Interpersonal skills with diverse populations in person and on the telephone.
- Knowledge of community, computer system, financial, and legal requirements.
- Ability to meet deadlines, work on multiple projects, and coordinate the work of others.
- Knowledge of district policies on immunization, medication, first aid, emergencies, and child abuse/neglect.
- Three years of teaching experience.

Education: The minimum requirements for this job are as follows: Bachelor's degree in Education or equivalent.

Working Environment: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job:

- The incumbent works with various staff members in a team environment including the administrative staff, State Department personnel, legal counsel, parents, students, advocates, and others outside the district.
- Frequent interactions with people in person and on the phone will be necessary.
- Duties are primarily performed in a normal school environment.

Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job with or without reasonable accommodation:

- The employee must occasionally lift and move up to 25 pounds in supplies which requires bending, stooping, and lifting.
- The employee must use hands and arms to manipulate objects.
- The employee must use keyboards, tools, and other controls.
- The employee must sit and stand for long periods of time.
- The employee will escort students around campus.
- The employee must have normal vision and hearing with or without aids.
- The employee must be able to move about assigned locations unaided during the work day.

Back Office and Support Services

In addition to the school's administrative team, Seven Oaks Classical School will partner with a unique educational service provider, Indiana Charters LLC, to provide back office and support services as well as operational knowledge, experience, and expertise. The Indiana Charters

Seven Oaks team will provide extensive services and support through the first year of operation. These services transition gradually through a teaching and mentoring phase preparing the Seven Oaks' staff to operate independently after the third year of operation.

Seven Oaks is pleased to be working with Indiana Charters and their transitional management team. We have not included full resumes, since these individuals will not be direct employees; nonetheless, we are confident that the collective experience and expertise of these individuals will help ensure effective and efficient operational practices.

The Indiana Charters team working directly with Seven Oaks Classical School includes the following:

Kevin L. Davis	<p>Formerly a middle school principal with Carmel-Clay and Speedway Schools, Kevin left traditional public education to co-found one of Indiana's initial 11 charter schools. Options Charter School - Carmel (2002) was created out of a community need to better serve students who were struggling in the traditional public schools in and around Hamilton County. Kevin led Options through expansion and replication opening Options - Noblesville in 2006. As President of the Options Charter Schools, Kevin led the effort to build a highly efficient business infrastructure supporting the unique, personalized, community-assisted alternative high schools. Before founding Indiana Charters, Kevin served as Vice President and COO of the Indiana Public Charter Schools Association. These experiences have given Kevin a unique perspective on the needs of charter operators in this state.</p> <p>Kevin's expertise includes charter school development and management, charter school financing, alternative school instruction, educational technology, school / community connections, charter school board development, and performance management.</p>
Laurie Serak	<p>Laurie has been working in educational leadership since 1999. A graduate of Butler University's elite EPPSP program, Laurie has been a school leader in public, private, and charter schools in urban, suburban, and rural areas. Her passion for school choice led her to her most recent post with Ball State University, Office of Charter Schools. Here she worked with schools across the state assuring that they were in compliance with their charter contract in regard to public policy, academics, governance, and finance. These unique experiences have given Laurie insight into every facet of chartering a school from its inception to renewal.</p> <p>Her areas of expertise include understanding the unique position of a charter school authorizer, proposal development, pre-opening requirements, intricacies of charter school contracts, reporting, and accountability. Laurie also offers her knowledge of curriculum and instruction in the areas of brain compatible research and best practice, disaggregating data, and differentiating the curriculum. By serving as a</p>

	chairperson for Advanced Ed., for several years, Laurie has developed a deep understanding of school climate and culture as it applies to positive school outcomes.
Brian D. Anderson	Brian has over eighteen years of experience in the charter school community and brings a broad perspective to his role as a business consultant for charter schools and other nonprofits. He spent eleven years in Colorado, providing business services to charter schools and working at the Colorado Department of Education (CDE) in the Schools of Choice Unit. Brian's primary responsibility with CDE was running the Colorado Business Managers Network. After moving to the Midwest to be closer to family, Brian became active in the Indiana charter school community while working for IFF in Chicago, IL. There, he was involved in charter school facility lending in a four-state Midwest region. In Indiana, Brian has experienced charter schools from multiple sides, working with schools and boards on their business needs and working for Ball State University's Office of Charter Schools in a financial oversight capacity.

Other Administrative/Management Staff

As noted above, a Bookkeeper and Registrar will be hired following year three to fulfill the roles initially filled by Indiana Charters, Inc. These positions will be filled at the start of the 4th quarter of the third fiscal year.

Attachment 4

Articles of Incorporation

**State of Indiana
Office of the Secretary of State**

**CERTIFICATE OF INCORPORATION
of
SEVEN OAKS CLASSICAL SCHOOL, INC.**

I, Connie Lawson, Secretary of State of Indiana, hereby certify that Articles of Incorporation of the above Non-Profit Domestic Corporation has been presented to me at my office, accompanied by the fees prescribed by law and that the documentation presented conforms to law as prescribed by the provisions of the Indiana Nonprofit Corporation Act of 1991.

NOW, THEREFORE, with this document I certify that said transaction will become effective Friday, July 19, 2013.



In Witness Whereof, I have caused to be affixed my signature and the seal of the State of Indiana, at the City of Indianapolis, July 19, 2013.

Connie Lawson

CONNIE LAWSON,
SECRETARY OF STATE

2013071900211 - 2013071900211

APPROVED AND FILED
CONNIE LAWSON
INDIANA SECRETARY OF STATE
7/19/2013 10:44 AM

ARTICLES OF INCORPORATION

Formed pursuant to the provisions of the Indiana Nonprofit Corporation Act of 1991.

ARTICLE I - NAME AND PRINCIPAL OFFICE

SEVEN OAKS CLASSICAL SCHOOL, INC.

P.O. BOX 7262, BLOOMINGTON, IN 47407

ARTICLE II - REGISTERED OFFICE AND AGENT

LINDSEY A. WEAVER
4035 E. BOLTINGHOUSE RD., BLOOMINGTON, IN 47408

ARTICLE III - INCORPORATORS

LINDSEY A. WEAVER
4035 E. BOLTINGHOUSE RD., BLOOMINGTON, IN 47408
Signature: /S/LINDSEY A. WEAVER

ARTICLE IV - GENERAL INFORMATION

Effective Date: 7/19/2013

Type of Corporation: Public Benefit Corporation

Does the corporation have members?: Yes

The purposes/nature of business

TO PROMOTE AND SUPPORT THE TEACHING AND TUTORING OF STUDENTS IN MONROE AND SURROUNDING COUNTIES IN THE STATE OF INDIANA IN A MANNER CONSISTENT WITH THE LAWS GOVERNING CHARTER SCHOOLS IN THE STATE OF INDIANA.

Distribution of assets on dissolution or final liquidation

ALL ASSETS REMAINING SHALL BE DISTRIBUTED TO SUCH ORGANIZATIONS ORGANIZED AND OPERATED EXCLUSIVELY FOR CHARITABLE, RELIGIOUS OR EDUCATIONAL PURPOSES AS SHALL AT THE TIME QUALIFY AS EXEMPT ORGANIZATIONS UNDER SEC. 501(C)(3) OF THE INTERNAL REVENUE CODE OF 1986 OR THE CORRESPONDING PROVISION OF ANY FUTURE UNITED STATES INTERNAL REVENUE LAW.

Bylaws of Seven Oaks Classical School, Inc.

ARTICLE I

General

Section 1. Name. The name of the corporation is Seven Oaks Classical School, Inc.

Section 2. Initial Registered Office and Initial Registered Agent. The post office address of the Corporation's initial registered office is 899 South College Mall Road, Suite 371 Bloomington, Indiana 47401. The initial registered agent in charge of the initial registered office Lindsey A. Weaver.

Section 3. Fiscal Year. The fiscal year of the Corporation shall begin on the first day of January and end on the last day of December next succeeding.

ARTICLE II

Board of Directors

Section 1. Directors. The affairs of the Corporation shall be managed, controlled, and conducted by, and under the supervision of, the Board of Directors, subject to the provisions of the Articles of Incorporation (the "Articles") and these Bylaws. The Board of Directors shall have the number of members, no less than five (5) and no more than nine (9), designated by resolution of the Board of Directors from time to time.

At the regular meeting of the Board of Directors immediately preceding the expiration of the term of any director, or at a special meeting, the Board of Directors may elect a new director to replace a director whose term will expire, or has expired, and each such new director shall serve for a term of two (2) years, or such other period as prescribed by the directors at the time of such election, and until his or her successor is elected and qualified. The Board of Directors may hold a vote to remove any member of the board without cause. In this case, a majority vote is required for the dismissal of the Board Member.

In order to ensure continuity among the directors of the Corporation, the terms of the members of the Board of Directors may be staggered as deemed necessary.

Section 2. Quorum and Approval of Actions. A majority of the directors in office immediately before a meeting begins shall constitute a quorum for the transaction of any business properly to come before the Board of Directors. Unless otherwise provided in the Articles or these Bylaws, the approval of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

Section 3. Regular Meetings. The Board of Directors may hold regular meetings, as fixed by these Bylaws or by resolution of the Board of Directors, for the purpose of transacting such business as properly may come before the Board of Directors.

Section 4. Special Meetings. Notwithstanding the preceding Section 3 of this Article II, the Board of Directors may hold special meetings for any lawful purpose upon not less than two (2) days' notice, as described in Section 6 of this Article II, upon call by the President or by two (2) or more members of the

Board of Directors. A special meeting shall be held at such date, time, and place inside the State of Indiana or elsewhere as specified in the call of the meeting.

Section 5. Compliance with Indiana Open Door Law. Notwithstanding any other provision of these Bylaws, the Corporation shall comply in all respects with the Indiana Open Door Law, Indiana Code 5-14-1.5-1, et seq., and any corresponding provision of subsequent Indiana Law, in connection with all regular or special meetings of the Board of Directors.

Section 6. Notice of Special Meetings. Oral or written notice of the date, time, and place of each special meeting of the Board of Directors shall be communicated, delivered, or mailed by the Secretary of the Corporation, or by the person or persons calling the meeting, to each member of the Board of Directors so that such notice is effective at least two (2) days before the date of the meeting and complies with the Indiana Open Door Law. The notice need not describe the purpose of the special meeting.

Oral notice shall be effective when communicated. Written, electronic, or tele-faxed notice, where applicable, shall be effective at the earliest of the following:

- (a) When received;
- (b) Five (5) days after the notice is mailed, as evidenced by the postmark or private carrier receipt, if mailed correctly addressed to the address listed in the most current records of the Corporation;
- (c) On the date shown on the return receipt, if sent by registered or certified United States mail, return receipt requested, and the receipt is signed by or on behalf of the addressee; or
- (d) Thirty (30) days after the notice is deposited with another method of the United States Postal Service other than first class, registered, or certified mail, as evidenced by the postmark, if mailed correctly addressed to the address listed in the most current records of the Corporation.

Section 7. Waiver of Notice. Notice of a meeting may be waived in a writing signed by the director entitled to notice and filed with the minutes or the corporate records. Attendance at or participation in any meeting of the Board of Directors shall constitute a waiver of lack of notice or defective notice of such meeting unless the director shall, at the beginning of the meeting or promptly upon the director's arrival, object to holding the meeting and not vote for or assent to any action taken at the meeting.

Section 8. Action by Written Consent. Any action required or permitted to be taken at any meeting of the Board of Directors, or any committee thereof, may be taken without a meeting if a written consent describing such action is signed by each director or committee member and if such written consent is included in the minutes or filed with the Corporation's records reflecting the action taken. Action taken by written consent shall be effective when the last director or committee member signs the consent and the Board of Directors ratifies the action taken in a subsequent meeting held pursuant to the Indiana Open Door Law, unless the consent specifies a prior or subsequent effective date. A consent signed as described in this Section 8 shall have the effect of approval at a meeting and may be described as such in any document.

Section 9. Resignation, Removal, and Vacancies. Any director may resign at any time by giving written notice of such resignation to the Board of Directors, the President, or the Secretary of the Corporation.

Such resignation shall take effect at the time specified therein, or if no time is specified, at the time of its receipt by the Board of Directors, the President, or the Secretary of the Corporation. The acceptance of a resignation shall not be necessary to make it effective.

A director may be removed for cause by a majority of the directors then in office. Cause shall include, but shall not be limited to:

- (a) Violations of applicable law, including (but not limited to):
 - (i) Violations of the Indiana Charter School Law; and
 - (ii) Actions that would jeopardize the tax-exempt status of the Corporation or would subject it to intermediate sanctions under the Internal Revenue Code of 1986, as amended, or corresponding provisions of any subsequent federal tax laws (the “code”).
- (b) Breach of fiduciary duty, including (but not limited to) a violation of the applicable standard of care under the Articles, these Bylaws, or applicable law.
- (c) Breach of any governing document relating to the Corporation, including (but not limited to) the Articles, these Bylaws, and the Charter Agreement.
- (d) Inadequate attendance at meetings of the Board of Directors, defined as absence from six (6) consecutive meetings or from at least fifty (50) percent (50%) of such meetings within one (1) calendar year.

Any vacancy on the Board of Directors created by the resignation or removal of a director shall be filled by a majority of the directors then in office.

Section 10. Educational Management Organizations. Should the Board of Directors elect to engage an educational management organization (“EMO”) to manage the operations of the charter school for which the Corporation is responsible (the “School”), no member of the Corporation’s Board of Directors may have any pecuniary interest in such EMO.

ARTICLE III

Officers

Section 1. In General. The officers of the Corporation shall consist of a President, a Vice President, a Secretary, a Treasurer and such other officers as the Board of Directors may otherwise elect. Any officer may not simultaneously hold more than one (1) office. Each officer shall be elected by the Board of Directors and shall serve for two (2) years, or such a period as prescribed by the directors at the time of such election, and until the officer’s successor is elected and qualified.

An officer shall be a member of the Board of Directors. Any officer may be removed by the Board of Directors at any time for cause as that term is defined herein Article II, Section 9. Any vacancy in any office shall be filled by the Board of Directors, and any person elected to fill such vacancy shall serve until the expiration of the term vacated and until his or her successor is elected and qualified.

Section 2. President. The President shall preside at all meetings of the Board of Directors of the Corporation and shall be responsible for implementing policies established by the Board of Directors. The President shall perform such other duties as the Board of Directors may prescribe.

Section 3. Vice President. The Vice President, at the express request of the President, shall perform the duties thereof, and at all times, render assistance to the President. The Vice President shall be responsible for implementing policies established by the Board of Directors. The Vice President shall automatically become the President of the unexpired term, in the event of resignation or death of the President. The Vice President shall assist the President with Program Planning and execution of the programs for all of the corporation's meetings.

Section 4. Secretary. The Secretary shall be the custodian of all papers, books, and records of the Corporation other than books of account and financial records. The Secretary shall prepare and enter in the minute book the minutes of all meetings of the Board of Directors. The Secretary shall authenticate records of the Corporation necessary. The Secretary shall perform the duties usual to such position and such other duties as the Board of Directors or the President may prescribe.

Section 5. Treasurer. The Treasurer shall prepare and maintain correct and complete records of account showing accurately the financial condition of the Corporation. All notes, securities, and other assets coming into the possession of the Corporation shall be received, accounted for, and placed in safekeeping as the Treasurer may from time to time prescribe. The Treasurer shall furnish, whenever requested by the Board of Directors or the President, a statement of the financial condition of the Corporation and shall perform the duties usual to such position and such other duties as the Board of Directors or the President may prescribe.

Section 6. Other Officers. Each other officer of the Corporation shall perform such duties as the Board of Directors or the President may prescribe.

ARTICLE IV

Committees

Section 1. Executive Committee. The Board of Directors may, by resolution adopted by a majority of the directors then in office, designate two (2) or more directors of the Corporation to constitute an Executive Committee which, to the extent provided in such resolution and consistent with applicable law, shall have and exercise all of the authority of the Board of Directors in the management of the Corporation's affairs during intervals between the meetings of the Board of Directors. The Executive Committee shall be subject to the authority and supervision of the Board of Directors.

Section 2. Other Committees. The Board of Directors may establish other committees, in addition to the Executive Committee, to accomplish the goals and execute the programs of the Corporation. Such committees shall have such responsibilities and powers as the Board of Directors shall specify. Members of such, committees may, but need not, be members of the Board of Directors. A committee member appointed by the Board of Directors may be removed by the Board of Directors with or without cause.

ARTICLE V

Conflicts of Interest

Section 1. General Policy. It is the policy of the Corporation and its Board of Directors that the Corporation's directors, officers, and employees carry out their respective duties in a fashion that avoids actual, potential, or perceived conflicts of interest. The Corporation's directors, officers, and employees

shall have the continuing, affirmative duty to report any personal ownership, interest, or other relationship that might affect their ability to exercise impartial, ethical, and business-based judgments in fulfilling their responsibilities to the Corporation. This policy shall be further subject to the following principles:

(a) Directors, officers, and employees of the Corporation shall conduct their duties with respect to potential and actual grantees, contractors, suppliers, agencies, and other persons transacting or seeking to transact business with the Corporation in a completely impartial manner, without favor or preference based upon any consideration other than the best interests of the Corporation.

(b) Directors, officers, and employees of the Corporation shall not seek or accept for themselves or any of their relatives (including spouses, ancestors, and descendants, whether by whole or half-blood), from any person or business entity that transacts or seeks to transact business with the Corporation, any gifts, entertainment, or other favors relating to their positions with the Corporation that exceed common courtesies consistent with ethical and accepted business practices.

(c) If a director or a director's relative, directly or indirectly owns a significant financial interest in, or is employed by, any business entity that transacts or seeks to transact business with the Corporation, the director shall disclose that interest or position and shall refrain from voting on any issue pertaining to the transaction.

(d) Officers and employees of the Corporation shall not conduct business on behalf of the Corporation with a relative or a business entity in which the officer, employee, or his or her relative owns a significant financial interest or by which such officer, employee, or relative is employed, except where such dealings have been disclosed to, and specifically approved and authorized by, the Board of Directors of the Corporation.

(e) The Board of Directors may require the Corporation's directors, officers, or employees to complete annually (or as otherwise scheduled by the Board) a disclosure statement regarding any actual or potential conflict of interest described in these Bylaws. The disclosure statement shall be in such form as may be prescribed by the Board and may include information regarding a person's participation as a director, trustee, officer, or employee of any other nonprofit organization. The Board of Directors shall be responsible for oversight of all disclosures or failures to disclose and for taking appropriate action in the case of any actual or potential conflict of interest transaction.

Section 2. Effect of Conflict Provisions. The failure of the Corporation, its Board of Directors, or any or all of its directors, officers, or employees to comply with the conflict of interest provisions of these Bylaws shall not invalidate, cancel, void, or make voidable any contract, relationship, action, transaction, debt, commitment, or obligation of the Corporation that otherwise is valid and enforceable under applicable law.

ARTICLE VI

Indemnification

Section 1. Indemnification by the Corporation. To the extent not inconsistent with applicable law, every person (and the heirs and personal representatives of such person) who is or was a director, officer, employee, or agent of the Corporation shall be indemnified by the Corporation against all liability and reasonable expense that may be incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding

- (a) if such person is wholly successful with respect thereto or
- (b) if not wholly successful, then if such person is determined (as provided in Section 3 of this Article VI) to have acted in good faith, in what he or she reasonably believed to be the best interests of the Corporation (or, in any case not involving the person's official capacity with the Corporation, in what he or she reasonably believed to be not opposed to the best interests of the Corporation), and, with respect to any criminal action or proceeding, is determined to have had reasonable cause to believe that his or her conduct was lawful (or no reasonable cause to believe that the conduct was unlawful). The termination of any claim, action, suit, or proceeding by judgment, settlement (whether with or without court approval), or conviction, or upon a plea of guilty or of nolo contendere or its equivalent, shall not create a presumption that a person did not meet the standards of conduct set forth in this Article VI.

Section 2. Definitions.

- (a) As used in this Article VI, the phrase "claim, action, suit, or proceeding" shall include any threatened, pending, or completed claim; civil, criminal, administrative, or investigative action, suit, or proceeding and all appeals thereof (whether brought by or on behalf of the Corporation, any other corporation, or otherwise), whether formal or informal, in which a person (or his or her heirs or personal representatives) may become involved, as a party or otherwise:
 - (i) By reason of his or her being or having been a director, officer, employee, or agent of the Corporation or of any corporation where he or she served as such at the request of the Corporation, or
 - (ii) By reason of his or her acting or having acted in any capacity in a corporation, partnership, joint venture, association, trust, or other organization or entity where he or she served as such at the request of the Corporation, or (iii) By reason of any action taken or not taken by him or her in any such capacity, whether or not he or she continues in such capacity at the time such liability or expense shall have been incurred. (b) As used in this Article VI, the terms "liability" and "expense" shall include, but shall not be limited to, counsel fees and disbursements and amounts of judgments, fines, or penalties against, and amounts paid in settlement by or on behalf of, a person.
- (c) As used in this Article VI, the term "wholly successful" shall mean
 - (i) termination of any action, suit, or proceeding against the person in question without any finding of liability or guilt against him or her,
 - (ii) approval by a court, with knowledge of the indemnity provided in this Article VI, of a settlement of any action, suit, or proceeding, or

(iii) the expiration of a reasonable period of time after the making of any claim or threat of any action, suit, or proceeding without the institution of the same, without any payment or promise made to induce a settlement.

Section 3. Entitlement to Indemnification. Every person claiming indemnification under this Article VI (other than one who has been wholly successful with respect to any claim, action, suit, or proceeding) shall be entitled to indemnification if

(a) special independent legal counsel, which may be regular counsel of the Corporation or any other disinterested person or persons, in either case selected by the Board of Directors, whether or not a disinterested quorum exists (such counsel or person or persons being hereinafter called the “referee”), shall deliver to the Corporation a written finding that such person has met the standards of conduct set forth in Section 1 of this Article VI and

(b) the Board of Directors, acting upon such written finding, so determines. The person claiming indemnification shall, if requested, appear before the referee and answer questions that the referee deems relevant and shall be given ample opportunity to present to the referee evidence upon which he or she relies for indemnification. The Corporation shall, at the request of the referee, make available facts, opinions, or other evidence in any way relevant to the referee’s findings that are within the possession or control of the Corporation.

Section 4. Relationship to Other Rights. The right of indemnification provided in this Article VI shall be in addition to any rights to which any person may otherwise be entitled.

Section 5. Extent of Indemnification. Irrespective of the provisions of this Article VI, the Board of Directors may, at any time and from time to time, approve indemnification of directors, officers, employees, agents, or other persons to the fullest extent permitted by applicable law, or, if not permitted, then to any extent not prohibited by such law, whether on account of past or future transactions.

Section 6. Advancement of Expenses. Expenses incurred with respect to any claim, action, suit, or proceeding may be advanced by the Corporation (by action of the Board of Directors, whether or not a disinterested quorum exists) prior to the final disposition thereof upon receipt of an undertaking by or on behalf of the recipient to repay such amount unless he or she is entitled to indemnification.

Section 7. Purchase of Insurance. The Board of Directors is authorized and empowered to purchase insurance covering the Corporation’s liabilities and obligations under this Article VI and insurance protecting the Corporation’s directors, officers, employees, agents, or other persons. –

ARTICLE VII

Contracts, Checks, Loans, Deposits and Gifts

Section 1. Contracts. The Board of Directors may authorize one (1) or more officers, agents, or employees of the Corporation to enter into any contract or execute any instrument on its behalf. Such authorization may be general or confined to specific instances. Unless so authorized by the Board of Directors, no officer, agent, or employee shall have any power to bind the Corporation or to render it liable for any purpose or amount.

Section 2. Checks. All checks, drafts, or other orders for payment of money by the Corporation shall be signed by such person or persons as the Board of Directors may from time to time designate by resolution. Such designation may be general or confined to specific instances.

Section 3. Loans. Unless authorized by the Board of Directors, no loan shall be made by or contracted for on behalf of the Corporation and no evidence of indebtedness shall be issued in its name. Such authorization may be general or confined to specific instances.

Section 4. Deposits. All funds of the Corporation shall be deposited to its credit in such bank, banks, or depositories as the Board of Directors may designate. Such designation may be general or confined to specific instances.

Section 5. Gifts. The Board of Directors may accept on behalf of the Corporation any gift, grant, bequest, devise, or other contribution for the purposes of the Corporation on such terms and conditions as the Board of Directors shall determine.

ARTICLE VIII

Amendments

The power to make, alter, amend, or repeal the Bylaws is vested in the Board of Directors of the Corporation; provided, however, that any proposed substantive alteration, amendment, or repeal of these Bylaws must be approved in writing by the sponsor of the School (as the term “sponsor” is defined in IC 20-24-1-9) prior to the Board of Directors of the Corporation taking any action thereon.

IRS 501(c)(3) Letter of Determination

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: JUL 14 2014

SEVEN OAKS CLASSICAL SCHOOL INC
899 SOUTH COLLEGE MALL RD STE 371
BLOOMINGTON, IN 47401

Employer Identification Number:
46-3846239
DLN:
17053034315004
Contact Person:
CUSTOMER SERVICE ID# 31954
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(ii)
Form 990 Required:
Yes
Effective Date of Exemption:
October 10, 2013
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. We determined that you are a public charity under the Code section(s) listed in the heading of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

Sincerely,




Director, Exempt Organizations

Letter 947

CHARTER SCHOOL APPLICANT
Statement of Assurances

The charter school agrees to comply with all of the following provisions: (*Read and check*)

- ☒ 1. A resolution or motion has been adopted by the charter school applicant's governing body that authorizes the submission of this application, including all understanding and assurances contained herein, directing and authorizing the applicant's designated representative to act in connection with the application and to provide such additional information as required.
- ☒ 2. Recipients operate (or will operate if not yet open) a charter school in compliance with all federal and state laws, including Indiana Charter Schools Law as described in all relevant sections of IC § 20-24.
- ☒ 3. Recipients will, for the life of the charter, participate in all data reporting and evaluation activities as required by **Grace College** and the Indiana Department of Education. See in particular IC § 20-20-8-3 and relevant sections of IC § 20-24.
- ☒ 4. Recipients will comply with all relevant federal laws including, but not limited to, the *Age Discrimination in Employment Act* of 1975, Title VI of the *Civil Rights Act* of 1964, Title IX of the *Education Amendments of 1972*, section 504 of the *Rehabilitation Act* of 1973, Part B of the *Individuals with Disabilities Education Act*, and section 427 of the *General Education Provision Act*.
- ☒ 5. Recipients will comply with all provisions of the Non regulatory Guidance—Public Charter Schools Program of the U.S. Department of Education, which includes the use of a lottery for enrollment if the charter school is oversubscribed, as well as with applicable Indiana law. See also relevant sections of IC § 20-24.
- ☒ 6. Recipients shall ensure that a student's records, and, if applicable, a student's individualized education program as defined at 20 U.S.C. § 1401(14) of the *Individuals with Disabilities Education Act*, will follow the student, in accordance with applicable federal and state law.
- ☒ 7. Recipients will comply with all provisions of the *No Child Left Behind Act*, including but not limited to, provisions on school prayer, the Boy Scouts of America Equal Access Act, the Armed Forces Recruiter Access to Students and Student Recruiting Information, the Unsafe School Choice Option, the Family Educational Rights and Privacy Act (FERPA) and assessments.
- ☒ 8. Recipients will operate with the organizer serving in the capacity of fiscal agent for the charter school and in compliance with generally accepted accounting principles.
- ☒ 9. Recipients will at all times maintain all necessary and appropriate insurance coverage.
- ☒ 10. Recipients will indemnify and hold harmless **Grace College**, the Indiana Department of Education, the State of Indiana, all school corporations providing funds to the charter school (if applicable), and their officers, directors, agents and employees, and any successors and assigns from any and all liability, cause of action, or other injury or damage in any way relating to the charter school or its operation.

<input checked="" type="checkbox"/> 11. Recipients understand that Grace College may revoke the charter if Grace College deems that the recipient is not fulfilling the academic goals and/or fiscal management responsibilities outlined in the charter.	
Signature from Authorized Representative of the Charter School Applicant	
I, the undersigned, am an authorized representative of the charter school applicant and do hereby certify that the information submitted in this application is accurate and true to the best of my knowledge and belief. In addition, I do hereby certify to the assurances contained above.	
<u>PRINT NAME & TITLE</u> Lindsey Weaver, Founding Board President <u>SIGN NAME</u> 	<u>DATE</u> March 9, 2015

Attachment 6

Governance Structure and Composition. Describe the governance structure of the proposed school. Describe the current and desired size and composition of the governing board. In addition, list the name of each current board member within the proposal narrative. In Attachment 6, provide a completed and signed Board Member Information Sheet for each current Board member for the governing entity/charter holder.

The board of directors for Seven Oaks Classical School will consist of no fewer than five (5) and no more than nine (9) members and will be led by an executive team to include, at minimum, a president, a vice-president, secretary and treasurer. At present, the board of directors for Seven Oaks Classical School is comprised of 8 members including the aforementioned positions.

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member responds individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

Brigitta Marie Powers

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

My experience and expertise is with classical curriculum and pedagogy. This experience and expertise provides me with the ability to successfully develop and implement a classical charter school in the liberal arts.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☐ I / we do not know any such trustees. ☒ Yes Personal friendship.

2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☒ N/A. ☐ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☒ N/A. ☐ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes

Certification

I, Brigitta Marie Powers, certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.



 Signature

3/10/2015
 Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member responds individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

Jazzmin Vegeler

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I believe in the importance of civic leadership and understand as a long time member of this community the critical role schools play in our society.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☐ I / we do not know any such trustees. ☒ Yes Personal friendship.

2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ -I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☒ N/A. ☐ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☒ N/A. ☐ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes

Certification

I, Jazzmin Vegeler, certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.

 Signature

3/10/2015
 Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

Linda Coughlin Murphy

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I am a Speech Language Pathologist, who has worked in both specialized and public schools. I am currently employed with First Steps and IU Health and have experience working with children and adults. My expertise provides me with the knowledge and capability to be an effective board member.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☐ I / we do not know any such trustees. ☒ Yes Personal friendship.


2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☐ N/A. ☒ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☐ N/A. ☒ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes

Certification

I, Linda Coughlin Murphy , certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.



 Signature

3/10/2015
 Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

Lindsey Andrea Weaver

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I began my career in education in 2001 by serving at-risk youth in the alternative educational setting. I have been a certified special education teacher since 2004. I currently hold my Master's in Communication Disorders with a specialization in Deaf Education and a Bachelor's in Philosophy and Anthropology. My educational background and experience provides me with the knowledge and expertise to successfully manage the implementation of a classical liberal arts charter school.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☐ I / we do not know any such trustees. ☒ Yes Personal friendship.

2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ -I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☒ N/A. ☐ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☒ N/A. ☐ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes

Certification

I, Lindsey Andrea Weaver, certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.



Signature

3/10/2015
Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

Matthew T. Wolf

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I previously served as the President of the Beta Sigma Psi Bloomington Alumni Chapter and on the Monroe County Park Board.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☒ I / we do not know any such trustees. ☐ Yes


2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☐ N/A. ☒ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☐ N/A. ☒ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes

Certification

I, Matthew T. Wolf, certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.



 Signature

3/10/2015
 Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

Terry Lee English

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I previously served as counsel for the Spencer-Owen Community School Corporation for 10 years.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☐ I / we do not know any such trustees. ☒ Yes Personal friendship.

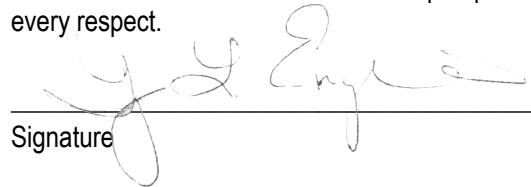
2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☐ N/A. ☒ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☐ N/A. ☒ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes
-

Certification

I, Terry English, certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.


Signature

3/10/2015
Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Seven Oaks Classical School

2. Your full name:

William E. Scott, Jr.

3. Brief educational and employment history. (No narrative response is required if resume is attached.)

☒ Resume is attached.

4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I have served on several boards including a start up consulting firm which I chaired. I was a board member and chair of the Windemere Homeowners Association. Board member of East Monroe Water Corporation. Chairman of several committees in IU graduate school of business including instituted and chaired Teaching Excellence Committee.

5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?

☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.

☒ I / we do not know any such trustees. ☐ Yes

2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.

☒ I / we do not know any such persons. ☐ Yes

3. Indicate if you, your spouse or other immediate family members anticipate conducting, or are conducting, any business with the school. If so, indicate the precise nature of the business that is being or will be conducted.
☒ I / we do not anticipate conducting any such business. ☐ Yes
4. If the school intends to contract with an Education Service Provider or management organization, indicate whether you or your spouse knows any employees, officers, owners, directors or agents of that provider. If the answer is in the affirmative, please describe any such relationship.
☐ Not applicable because the school does not intend to contract with an education service provider or school management organization.
☒ I / we do not know any such persons. ☐ Yes
5. If the school contracts with an education service provider, please indicate whether you, your spouse or other immediate family members have a direct or indirect ownership, employment, contractual or management interest in the provider. For any interest indicated, provide a detailed description.
☐ N/A. ☒ I / we have no such interest. ☐ Yes
6. If the school plans to contract with an Education Service Provider, indicate if you, your spouse or other immediate family member anticipate conducting, or are conducting, any business with the provider. If so, indicate the precise nature of the business that is being or will be conducted.
☐ N/A. ☒ I / we or my family do not anticipate conducting any such business. ☐ Yes
7. Indicate whether you, your spouse or other immediate family members are a director, officer, employee, partner or member of, or are otherwise associated with, any organization that is partnering with the charter school. To the extent you have provided this information in response to prior items, you may so indicate.
☒ Does not apply to me, my spouse or family. ☐ Yes
8. Indicate any potential ethical or legal conflicts of interests that would, or are likely to, exist should you serve on the school's board. ☒ None. ☐ Yes
-

Certification

I, William E. Scott, Jr., certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for Charter School is true and correct in every respect.



Signature

3/10/2015
Date

CHARTER SCHOOL BOARD MEMBER INFORMATION

(To be completed individually by each proposed board member for the charter holder)

Serving on a public charter school board is a position of public trust and fiduciary responsibility. As a board member of a public school, you are responsible for ensuring the quality of the school program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the founding group behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:
Seven Oaks Classical School
2. Your full name: Fred W Prall
3. Brief educational and employment history. (No narrative response is required if resume is attached.)
☒ Resume is attached.
4. Describe any of your previous experiences that are relevant to serving on the charter school's board (including other board experience, or any experience overseeing start-up or entrepreneurial ventures). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.
I believe that I can be an effective board member due in part to my academic background, my 52 years of work and experience and my having had a hand in raising four highly successful taxpaying children.
5. Do you understand the obligations of a charter school's Board of Directors to comply with Indiana's Public Access laws, including the Open Door Law for Board meetings?
☒ Yes ☐ Don't Know/ Unsure

Disclosures

1. Indicate whether you or your spouse knows the other prospective board members for the proposed school. If so, please indicate the precise nature of your relationship.
☐ I / we do not know any such trustees. ☒ Yes *Recently Introduced.*
2. Indicate whether you or your spouse knows anyone who is doing, or plans to do, business with the charter school (whether as an individual or as a director, officer, employee or agent of an entity). If so, indicate and describe the precise nature of your relationship and the nature of the business that such person or entity is transacting or will be transacting with the school.
☒ I / we do not know any such persons. ☐ Yes

- Certification**
- I, Fred Pratt, certify to the best of my knowledge and ability that the information I am providing to the Indiana Charter School Board as a prospective board member for _____ Charter School is true and correct in every respect.

3/13/15
Date

Attachment 7

Describe the board's ethical standards and procedures for identifying and addressing conflicts of interest. Provide, as Attachment 7, the board's Code of Ethics policy and Conflict of Interest policy. Both documents should be included in the attachment.

Code of Ethics

The Board of Directors recognizes that sound, ethical standards of conduct serve to increase the effectiveness of school board members and their staff as educational leaders in their community. Actions based on an ethical code of conduct promote public confidence and the attainment of school goals. The Board also recognizes its obligation under Indiana Law to adopt a code of ethics, setting forth the standards of conduct required of all school board members, officers and employees.

Therefore, every officer and employee of the school, whether paid or unpaid, including Board members and officers, shall adhere to the following code of conduct:

1. *Gifts:* An officer or employee shall not directly or indirectly solicit any gifts; nor shall an officer or employee accept or receive any single gift having a value of \$75 or more, or gifts from the same source having a cumulative value of \$75 or more over a twelve-month period, whether in the form of money, services, loans, travel, entertainment, hospitality, thing or promise, or any other form, if it could reasonably be inferred that the gift was intended to influence him or her in the performance of his or her official duties or was intended as a reward for any official action on his or her part.

However, the Board welcomes and encourages the writing of letters or notes expressing gratitude or appreciation to staff members. Gifts from children that are principally sentimental in nature and of insignificant financial value may be accepted in the spirit in which they are given.

2. *Confidential information:* An officer or employee shall not disclose confidential information acquired by him or her in the course of his or her official duties or use such information to further his or her own personal interest. In addition, he or she shall not disclose information regarding any matters discussed in an executive session of the Board, whether such information is deemed confidential or not.
3. *Representation before the Board:* An officer or employee shall not receive or enter into any agreement, express or implied, for compensation for services to be rendered in relation to any matter before the school board.
4. *Representation before the Board for a contingent fee:* An officer or employee shall not receive or enter into any agreement, express or implied, for compensation for services to be rendered in relation to any matter before the school board, whereby the compensation is to be dependent or contingent upon any action by the school with respect to such matter, provided that this paragraph

shall not prohibit the fixing at any time of fees based upon the reasonable value of the services rendered.

5. *Disclosure of interest in matters before the Board:* A member of the Board of Directors and any officer or employee of the school, whether paid or unpaid, who participates in the discussion or gives an official opinion to the Board of Directors on any matter before the Board shall publicly disclose on the official record the nature and extent of any direct or indirect financial or other private interest he or she has in such matter. The term “interest” means a pecuniary or material benefit accruing to an officer or employee.
6. *Investments in conflict with official duties:* An officer or employee shall not invest in or hold any investment directly in, any financial business, commercial or other private transaction that creates a conflict with his or her official duties.
7. *Private employment:* An officer or employee shall not engage in, solicit, negotiate for or promise to accept private employment when that employment or service creates a conflict with or impairs the proper discharge of his or her official duties.
8. *Future employment:* An officer or employee shall not, after the termination of service or employment with the Board, appear before the Board or any panel or committee of the Board, in relation to any case, proceeding, or application in which he or she personally participated during the period of his or her service or employment or that was under his or her active consideration. This shall not bar or prevent the timely filing by a present or former officer or employee of any claim, account, demand or suit against the school corporation on his or her own behalf or on behalf of any member of his or her family arising out any personal injury or property damage or for any lawful benefit authorized or permitted by law.

Distribution of Code of Ethics

The President of the Board of Directors, or his or her designee, shall cause a copy of this Code of Ethics to be distributed annually to every board member and employee of the school. Each officer and employee elected or appointed thereafter shall be furnished a copy before entering upon the duties of his or her office or employment.

Penalties

In addition to any penalty contained in any other provision of law, any person who shall knowingly and intentionally violate any of the provisions of the Board’s Code of Ethics may be suspended or removed from office or employment, as the case may be, in the manner provided by law, or the Bylaws of the corporation.

Conflicts of Interest

Section 1. General Policy It is the policy of the Corporation and its Board of Directors that the Corporation’s directors, officers, and employees must carry out their respective duties in a fashion that avoids actual, potential, or perceived conflicts of interest. The Corporation’s directors, officers, and employees shall have the continuing, affirmative duty to report any personal ownership, interest, or other relationship that might affect their ability to exercise impartial, ethical, and business-based judgments in

fulfilling their responsibilities to the Corporation. This policy shall be further subject to the following principles:

- (a) Directors, officers, and employees of the Corporation shall conduct their duties with respect to potential and actual grantees, contractors, suppliers, agencies, and other persons transacting or seeking to transact business with the Corporation in a completely impartial manner, without favor or preference based upon any consideration other than the best interests of the Corporation.
- (b) Directors, officers, and employees of the Corporation shall not seek or accept for themselves or any of their relatives (including spouses, ancestors, and descendants, whether by whole or half-blood), from any person or business entity that transacts or seeks to transact business with the Corporation, any gifts, entertainment, or other favors relating to their positions with the Corporation that exceed common courtesies consistent with ethical and accepted business practices.
- (c) If a director or a director's relative, directly or indirectly owns a significant financial interest in, or is employed by, any business entity that transacts or seeks to transact business with the Corporation, the director shall disclose that interest or position and shall refrain from voting on any issue pertaining to the transaction.
- (d) Officers and employees of the Corporation shall not conduct business on behalf of the Corporation with a relative or a business entity in which the officer, employee, or his or her relative owns a significant financial interest or by which such officer, employee, or relative is employed, except where such dealings have been disclosed to, and specifically approved and authorized by, the Board of Directors of the Corporation.
- (e) The Board of Directors may require the Corporation's directors, officers, or employees to complete annually (or as otherwise scheduled by the Board) a disclosure statement regarding any actual or potential conflict of interest described in this document. The disclosure statement shall be in such form as may be prescribed by the Board and may include information regarding a person's participation as a director, trustee, officer, or employee of any other nonprofit organization. The Board of Directors shall be responsible for oversight of all disclosures or failures to disclose and for taking appropriate action in the case of any actual or potential conflict of interest transaction.

Section 2. Effect of Conflict Provisions. The failure of the Corporation, its Board of Directors, or any or all of its directors, officers, or employees to comply with the conflict of interest provisions of this document shall not invalidate, cancel, void, or make voidable any contract, relationship, action, transaction, debt, commitment, or obligation of the Corporation that otherwise is valid and enforceable under applicable law.

All board members have read, understand and acknowledged this Code of Ethics and Conflicts of Interest document. A signed acknowledgement is available upon request.

Attachment 8

As Attachment 8, provide a core curriculum scope and sequence by subject, for each grade level proposed, that demonstrates clear alignment with Indiana’s Academic Standards and the Common Core. The scope and sequence should clearly reflect how the school’s curriculum is integrated across subjects and grade levels served, and how it will result in proficiency. If the curriculum is not yet fully developed, provide a timeline outlining the curriculum development process (including individuals and/or consultants responsible for this task) during the school’s pre-opening year.

Elementary and Middle School

The Grammar (Elementary) School: Explicit teaching of the fundamentals. The “grammar” of learning refers to the fundamentals of all skills and subjects, which are the *sine qua non* of all subsequent thought. No higher-level thinking or critical thinking is able to occur when young people are not thoroughly immersed in the grammar of reading, writing, speaking, and each academic discipline. Memorization is the key at this stage of learning, as the memory is the most powerful intellectual capacity of the child, and children love to memorize.

The Middle School: The middle school will continue to work on the programs begun in grammar school, while going into greater depth. The students will have an increased capacity for logic in their thinking, speaking, and writing. At the same time, the middle school presents much greater challenges in student behavior. To guide students through the storm of adolescence, self-government will be the leading virtue taught and expected.

The Core Knowledge curriculum is aligned with Indiana State Standards and benchmarks (2010), as well as the Common Core Standards. The alignment was completed by the Core Knowledge Foundation, and the Core Knowledge curriculum is fully compliant in the area of English Language Arts and Mathematics. The Core Knowledge At-a-Glance document provides a general outline for the remaining subjects and Seven Oaks Classical School has the previous Indiana State Standards alignment for 2010 for all subjects listed. The literature base of our K-8 program comes directly from the readings and lessons of Core Knowledge. For the purposes of this application, the common core standards are included and the Indiana State Standards of 2010 are available upon request.

Language Arts instruction will also occur with the Riggs explicit phonics program, which functions also in the area of grammar, syntax, composition, spelling, and vocabulary. The aforementioned skills are critical components of the Common Core and Indiana State Standards, and we believe this complement to Core Knowledge will offer a content-rich, literacy-based reading and writing program in addition to Core Knowledge.

Singapore Math is fully aligned with the Common Core Standards for grades K-8 as of 2012, as evidenced below.

Curriculum Course Name and Description

English Language Arts

Course Name and Description for each grade level being offered at the proposed school:
Kindergarten: The Kindergarten English Language Arts course focuses on oral language development and listening skills in addition to foundational skills in reading and writing based on the Riggs Method. Read-alouds from a variety of literary genres and nonfiction texts will promote vocabulary knowledge and awareness of syntax. Explicit and systematic phonics instruction will develop mastery of the written English code.
1st grade: Grade 1 English Language Arts continues to emphasize listening and speaking and fundamental literacy skills such as phonemic awareness and phonics through <i>The Writing and Spelling Road to Reading and Thinking</i> developed by Riggs. Students will become increasingly more independent with reading and writing. They will write for a variety of purposes (e.g., narrative, informational, persuasive), and they will develop reading fluency through decodable texts.
2nd grade: Grade 2 English Language Arts will emphasize speaking and listening through classroom discussion and oral presentations. Reading instruction will include phonics, fluency, and comprehension skills in a variety of nonfiction texts and literary genres, including Greek mythology and American folk tales. Students will learn spelling, grammar and conventions through the Riggs Method. Students will use the writing process to plan, draft, and edit writing and will apply basic language conventions in their written work.
3rd grade: Grade 3 English Language Arts will include instruction in reading and writing skills including elements of fiction and nonfiction texts. Reading instruction will focus on comprehension and response, vocabulary development, and reading fluency with more complex texts. Students will produce a variety of types of writing, including stories, reports, letters, and poems. Through the Riggs Method, writing instruction will cover spelling, grammar, and usage conventions. Students will also be introduced to basic research skills.
4th grade: Grade 4 English Language Arts places a stronger emphasis on expository writing (e.g., summaries, book reports, research papers, descriptive essays) than in previous grades. Students are encouraged to apply the correct use of writing conventions and to do so more independently. Reading instruction will focus on comprehension and response, vocabulary development, and reading fluency with more complex texts. Students will be expected to read a minimum of 20 minutes a day outside of class.
5th grade: Grade 5 English Language Arts continues to emphasize expository writing with additional instruction in research and presentations. Instruction also includes revision and editing skills within the writing process, requiring more competent, consistent use of correct grammar, usage, and spelling. Vocabulary enrichment covers prefixes and suffixes. Reading instruction includes analysis of literary craft and a writer's use of language. Students will read outside of class at least 25 minutes daily.
6th grade: Grade 6 English Language Arts extends the focus on expository writing to include research essays, persuasive essays, and business letters. Students will apply revision and editing skills to produce written work that is thoughtful, well-organized, and reasonably correct in grammar, conventions, and spelling. For vocabulary enrichment, students will learn Latin and Greek root words. In reading, they will analyze classic works of literature such as Shakespeare's <i>Julius Caesar</i> and Twain's <i>The Prince and the Pauper</i> .
7th grade: Core English 7. Students will be given opportunities to write fiction, poetry, or drama, but instruction will emphasize repeated expository writing across multiple disciplines. Instruction in essay writing will focus on development of unity, coherence, and emphasis. Grammar lessons will include parts of sentences, clauses, and spelling. For vocabulary, students will learn Greek and Latin root words and phrases. In literature, students will analyze poems, drama, nonfiction, and fiction for a writer's use of language and literary elements, with particular attention to diction and tone. Literary works include Poe's "The Tell-Tale Heart" and <i>The Call of the Wild</i> by Jack London.
8th grade: Core English 8. Students will be given opportunities to write fiction, poetry, or drama, but instruction will emphasize repeated expository writing across multiple disciplines. Students will examine all writing—their own as well as others'—with attention to unity, coherence, emphasis, diction, and tone. Grammar lessons will focus on sentence variety, a review of punctuation appropriate to sentence

structure, parallelism, and misplaced modifiers. Vocabulary enrichment will include memorization of Greek and Latin root words and phrases. Literary analysis will include essays and speeches in addition to short stories, novels, poems, and other literary works. Students will learn to read as writers, with attention to an author's craft.

Mathematics

Course Name and Description for each grade level being offered at the proposed school:

Kindergarten: In this activity-based class, kindergarten students will receive a strong foundation in mathematics in preparation for subsequent stages of mathematical thinking. Mathematical concepts are developed in a systematic, engaging, and fun way. Concepts include matching and sorting; numbers to 10; order, shapes, and patterns; length and size; weight; and capacity.

1st grade: Singapore Math 1: Students will develop the foundational mathematical concepts and skills for everyday life and continuous learning in mathematics. Content will include a thorough understanding of whole numbers, addition and subtraction of whole numbers, identifying the value of coins and bills, telling time to the half hour, comparing the length and weight of objects, identifying and categorizing 2-dimensional shapes, describing and extending repeating patterns, solving simple word problems involving addition/subtraction, sorting objects and using picture graphs, and basic algebra skills involving numeric equations and operational symbols.

2nd grade: Singapore Math 2: Students in second grade will extend their understanding of whole numbers to include those within 1000 and will thoroughly understand the meanings of subtraction and addition. They will multiply and divide by 2s, 3s, 4s, 5s, and 10s. More complex work with fractions will be introduced, and skills related to money and time will be emphasized. Students will learn to measure, weigh, estimate, and compare objects and substances. In geometry, they will describe and classify 3-dimensional shapes and extend repeating patterns involving a combination of shapes. Word problem skills will include writing equations and solving one-step word problems requiring addition/subtraction and multiplication/division. Introductory data analysis will include finding range and mode. Algebraic concepts will include solving problems involving numeric equations or inequalities and using symbols to stand for unknown numbers in equations. A number of mental math strategies will be emphasized throughout the year, including adding/subtracting numbers from 100 and 1000 and adding/subtracting money in dollars and cents.

3rd grade: Singapore Math 3: Students will develop their understanding of whole numbers to include place values and operations within 10,000, and they will multiply/divide by 6s, 7s, 8s, and 9s. Division of numbers within 10,000 will include situations where there is a remainder. Students will also learn more complex skills involving fractions, including finding equivalent fractions and the simplest forms of fractions, and comparing and ordering fractions with different denominators. Students will master the concept of time, finding the duration of time intervals and telling time to the minute on an analog clock. With regard to length, weight, mass, and capacity, students will measure, weigh, and estimate in grams, liters, and milliliters and will convert units within a metric system using multiplication. Students will be introduced to the concepts of perimeter and area, and they will identify 3-dimensional shapes and right angles. They will solve 2-step word problems and will become adept at creating and using bar graphs to solve problems and represent and compare data.

4th grade: Singapore Math 4: Students will develop their understanding of whole numbers to include place values and operations within 100,000. They will use estimation to verify calculated results in problems of multiplication/division. Skills related to fractions will include adding/subtracting fractions, understanding mixed numbers and improper fractions and converting them, and finding the fraction of a set for measurements. Students in grade 4 will be introduced to decimals, beginning with understanding tenths, hundredths, thousandths and comparing decimal numbers. They will learn to round decimal numbers up to 2 places and will add/subtract and multiply/divide decimal numbers. Students will also be introduced to the concept of volume and will be able to find the volume of rectangular prisms. In geometry, they will identify triangles and quadrilaterals, a variety of angles, and perpendicular and

parallel lines. Two-step word problems will involve fractions and decimals and the use of bar diagrams to solve them. Data analysis lessons will become more complex as students collect, organize, and analyze data using tables and bar graphs.
5th grade: Singapore Math 5: In fifth grade, students will use place-value models to represent numbers to 1,000,000 and will multiply/divide within 10,000 by 2-digit numbers. They will learn to use the order of operations to solve mathematical expressions. Lessons related to fractions and decimals will become more complex as students multiply/divide fractions and decimals and convert fractions to decimals and vice versa. They will also convert units involving decimals and fractions within a measuring system. Instruction on the concept of volume will go into more depth as students solve problems involving a change in height of liquids and volume of liquids and finding the volume of solids by displacement. Geometry lessons will include finding unknown angles, using angle properties to solve problems, and creating tessellations. Fifth graders will be introduced to the concepts of percentage, ratio, average, and rate and will solve multi-step problems involving these concepts, using bar diagrams when needed. Data analysis skills will develop in complexity when students create line graphs, find the average of a set of data, and find a data value given the average and other values.
6th grade: Singapore Math 6: Students in sixth grade will solve challenging word problems involving all four operations on whole numbers, fractions, decimals, percentages, the volume of liquids and solids, averages, rate, and speed. They will write, simplify, and evaluate simple algebraic expressions and use variables in expressions when describing geometric quantities. They will derive the formula for circumference or area of a circle when given the radius or diameter and will find the perimeter and area of compound figures. In geometry, they will visualize, describe, and draw geometric solids and will identify nets of solids, or solids of nets. They will become more adept at solving problems using ratios and relating them to proportions and fractions of a quantity. Data analysis will involve collecting, organizing, and displaying data in pie charts.
7th grade: Advanced Singapore Math: In this course, emphasis is placed on the development of better understanding of mathematical concepts and their applications, as well as on proficiency in problem solving, mathematical reasoning, and higher order thinking. To facilitate this, instruction will include the following: •investigative work •communication skills in mathematics •appropriate computation and estimation skills •mental calculation •problem-solving heuristics. Mathematical concepts will include: algebraic representations and formula and algebraic manipulation; percentages; solutions of linear equations and inequalities; graphs of linear functions and relations, mensuration and rate, ratio, proportion, and speed. Word problems will involve rational numbers, integers, percentages, ratios, rate, and speed. The textbook will be <i>New Elementary Math Syllabus D1</i> by Sin Kwai Ming.
8th grade: ALGEBRA I: Weeks and Adkins, <i>First Course in Algebra</i> . Topics: linear equations, slope, intercepts, roots, absolute value equations, piecewise equations, vertices, quadratic equations, quadratic formula, systems of equations, systems of inequalities, irrational numbers, imaginary numbers, complex numbers, direct and inverse variation, factoring, completing the square, rational equations, trigonometric ratios, Pythagorean theorem, fundamental counting principle, permutation, combinations, probability, compound events, Pascal's triangle, and binomial theorem.

Science

Course Name and Description for each grade level being offered at the proposed school:
Kindergarten: Science K. I. Plants and Plant Growth, II. Animals and Their Needs, III. The Human Body, IV. Introduction to Magnetism, V. Seasons and Weather, VI. Taking Care of the Earth, VII. Science Biographies
1st grade: Science 1. I. Living Things and Their Environments II. Human Body (Body Systems) III. Matter IV. Properties of Matter: Measurement V. Introduction to Electricity VI. Astronomy VII. The Earth VIII. Science Biographies

2nd grade: Science 2. I. Cycles in Nature; II. Insects; III. Human Body; IV. Magnetism; V. Simple Machines; VI. Science Biographies
3rd grade: Science 3. I. Introduction to Classification of Animals II. Human Body (Muscular, Skeletal, and Nervous Systems; Vision and Hearing) III. Light and Optics IV. Sound V. Ecology VI. Astronomy VII. Science Biographies
4th grade: Science 4. I. Human Body (Circulatory and Respiratory Systems) II. Chemistry: Basic Terms and Concepts III. Electricity IV. Geology: The Earth and Its Changes V. Meteorology VI. Science Biographies
5th grade: Science 5. I. Classifying Living Things II. Cells: Structures and Processes III. Plant Structures and Processes IV. Life Cycles and Reproduction V. Human Body (Endocrine and Reproductive Systems) VI. Chemistry: Matter and Change VII. Science Biographies
6th grade: Science 6. I. Plate Tectonics II. Oceans III. Astronomy: Gravity, Stars, and Galaxies IV. Energy, Heat, and Energy Transfer V. The Human Body: Lymphatic and Immune Systems VI. Science Biographies
7th grade: Science 7. I. Atomic Structure II. Chemical Bonds and Reactions III. Cell Division and Genetics IV. History of the Earth and Life Forms V. Evolution VI. Science Biographies
8th grade: Science 8. I. Physics II. Electricity and Magnetism III. Electromagnetic Radiation and Light IV. Sound Waves V. Chemistry of Food and Respiration VI. Science Biographies

History

Course Name and Description for each grade level being offered at the proposed school:
Kindergarten: Core History K. <u>World:</u> I. Geography: Spatial Sense II. Overview of the Seven Continents <u>American:</u> I. Geography II. Native American Peoples, Past and Present III. Early Exploration and Settlement IV. Presidents, Past and Present V. Symbols and Figures
1st grade: Core History 1. <u>World:</u> I. Geography II. Early World Civilizations III. Modern Civilization and Culture: Mexico <u>American:</u> I. Early People and Civilizations II. Early Exploration and Settlement III. From Colonies to Independence: The American Revolution IV. Early Exploration of American West V. Symbols and Figures
2nd grade: Core History 2. <u>World:</u> I. Geography II. Early Asian Civilizations III. Modern Japanese Civilization IV. The Ancient Greek Civilization <u>American:</u> I. Government: The Constitution II. The War of 1812 III. Westward Expansion IV. The Civil War V. Immigration and Citizenship VI. Fighting for a Cause VII. Geography of the Americas VIII. Symbols and Figures
3rd grade: Core History 3. <u>World:</u> I. World Geography II. The Ancient Roman Civilization III. The Vikings <u>American:</u> I. The Earliest Americans II. Early Exploration of North America III. The Thirteen Colonies: Life and Times Before the Revolution
4th grade: Core History 4. <u>World:</u> I. World Geography (Spatial Sense; Mountains) II. Europe in Middle Ages III. The Spread of Islam and the “Holy Wars” IV. Early and Medieval African Kingdoms V. China: Dynasties and Conquerors <u>American:</u> I. The American Revolution II. Making a Constitutional Government III. Early Presidents and Politics IV. Reformers V. Symbols and Figures
5th grade: Core History 5. <u>World:</u> I. World Geography (Spatial Sense; Lakes) II. Early American Civilizations III. European Exploration, Trade, and the Clash of Cultures IV. The Renaissance and the Reformation V. England from the Golden Age to the Glorious Revolution VI. Russia: Early Growth and Expansion VII. Feudal Japan <u>American:</u> I. Westward Expansion II. The Civil War: Causes, Conflicts, Consequences III. Native Americans: Cultures and Conflicts IV. U.S. Geography
6th grade: Core History 6. <u>World:</u> I. World Geography (Spatial Sense; Deserts) II. Lasting Ideas from Ancient Civilizations III. The Enlightenment IV. The French Revolution V. Romanticism VI.

Industrialism, Capitalism, and Socialism VII. Latin American Independence Movements <u>American:</u> I. Immigration, Industrialization, and Urbanization II. Reform
7th grade: Core History 7. I. America Becomes a World Power II. World War I: “The Great War,” 1914–1918 III. Russian Revolution IV. America from the Twenties to the New Deal V. World War II VI. Geography of United States
8th grade: Core History 8. I. The Decline of European Colonialism II. The Cold War III. The Civil Rights Movement IV. The Vietnam War and the Rise of Social Activism V. The Middle East and Oil Politics VI. The End of the Cold War: The Expansion of Democracy and Continuing Challenges VII. Civics: The Constitution— Principles and Structure of American Democracy VIII. Geography of Canada and Mexico

Latin

The goal of Latin courses in grades 3–8 is for students to master the entire Latin grammar, along with several hundred Latin words, so that they will be able to translate original Latin texts in high school.

Course Name and Description for each grade level being offered at the proposed school:
Grade 3: Introduction to Latin: Students receive a gentle introduction to Latin grammar and vocabulary. They learn 10 vocabulary words per week. Students also study the first two noun declensions and the present indicative system of the 1 st and 2 nd verb conjugations.
Grade 4: Elementary Latin I: Larsen & Perrin, <i>Latin for Children, Primer A</i> . Students learn approximately 310 new vocabulary words. They review and deepen their understanding of the first two noun declensions and the present indicative system of the first and second verb conjugations. New grammar includes 1 st and 2 nd declension adjectives. In addition, students begin translating simple sentences from Latin to English.
Grade 5: Elementary Latin II: Larsen & Perrin, <i>Latin for Children, Primer B</i> . Students learn approximately 310 new vocabulary words. They review grammar from the previous year. New grammar to be learned includes: personal pronouns, demonstrative pronouns, prepositions, ordinal numbers, irregular verbs, 3 rd declension nouns, 3 rd conjugation verbs, and imperatives. Students will continue to refine their Latin-to-English translation skills on more difficult sentences.
Grade 6: Elementary Latin III: Larsen & Perrin, <i>Latin for Children, Primer C</i> . Students learn approximately 310 new vocabulary words. They review grammar from the previous year. New grammar to be learned includes: 3 rd declension adjectives, perfect system endings, 4 th conjugation verbs, 3 rd conjugation –io verbs, more irregular verbs, and 4 th and 5 th declension nouns. Students continue to translate more complex sentences in preparation for translating classic texts by Roman authors in middle school.
Grade 7: Intermediate Latin I: Moore & DuBose, <i>Latin Alive! Book 1</i> . Students review all of the grammar studied in previous years. New grammar includes: partitive expressions; constructions of price, time, and space; reflexive pronouns; reflexive possessive adjectives; relative and interrogative pronouns; adverbs, more irregular verbs; and principal parts of verbs. Students spend more time on translation work, often translating entire paragraphs.
Grade 8: Intermediate Latin II: Moore & DuBose, <i>Latin Alive! Book 2</i> . Students review all of the grammar studied in previous years. New grammar includes: uses of the ablative: accompaniment, manner, means/instrument, separation, place from which, place where, respect, price, agent; vocative case; locative case: place expressions; positive adjectives; comparative adjectives; comparisons: <i>quam</i> , ablative of comparison; superlative adjectives; substantive adjectives; formation of adverbs; comparison of adverbs; special and irregular comparison of adjectives; partitive expressions; time expressions: time when, time within which; accusative of duration of time; accusative of space and

degree; mood and negative commands; passive voice; relative clauses; interrogative sentences; interrogative pronouns; interrogative adverbs; irregular nouns; participles; gerunds; infinitive as noun; intensive pronouns; deponent verbs. Students begin translating short passages of Roman literature.
--

High School

The objective of the high school curriculum will be to explore issues and texts intensively and in depth. The focus for teaching literature will be the great books and the classics using the Socratic Method. History will be taught mainly through the use of primary source documents—artifacts, documents, recordings or other sources of information created at the time under study. In the high school, for example, teachers of American History will introduce students to historical works that contributed to the formation of American society and culture, such as George Washington’s *Farewell Address* and Martin Luther King, Jr.’s *Letter from Birmingham Jail*. Such primary sources will bring history to life and equip students with essential insight, and research and analytical skills. Students will learn a true account of the times through the eyes and words of those who experienced such events and helped shape history.

High school mathematics and the sciences will offer rigorous training in the fundamentals and theories of these disciplines. Students will receive extensive training in analytical thinking and the scientific method. High school students will take four years of science, beginning with the fundamentals of biology in the freshman year, chemistry in the sophomore year and physics in the junior year. Elective courses in mathematics and the sciences will be added in subsequent years as the school grows and as it better understands the needs of the student body. Textbooks will be used as a resource, not as the basis of the curriculum. Teaching in the sciences will likely include student exposure to reports of original research, observations or ideas such as Galileo’s *The Starry Messenger*, Sir Isaac Newton’s *Principia*, or Euclid’s *Geometry*.

Proposed Courses and Outline for High School

English

Students will take four years of English, including at least a half credit in composition which will be built into most classes.

The classes will follow the great books approach. That is, complete works of great literature will be read, not snippets from anthologies, and only those books that have attained the status of classics will be studied. The books will be thoroughly read and discussed. The curriculum will not be a race through the entire Western canon, just to say that the books have been read. Rather, the principle of “less is more” will be used so that students will have a deep knowledge of, for example, two or three Greek plays or two or three Shakespearean plays, not a superficial knowledge of ten of them.

In English, the Socratic Method will govern most discussions. The Socratic Method is not a random asking of questions by a teacher who hardly knows the text himself or herself. Rather, it is a systematic questioning of the students about key passages and themes that requires students to think carefully about the story and to consider the insights that story offers into human nature. Foremost, great literature will be seen as moral, that is, showing the decisions characters must make in certain settings and crises that are either virtuous or vicious, just or unjust, and that consequently lead either to greatness or infamy, happiness or misery. Though the lessons may not be simplistic (no great story is), all great literature offers moral values, from the *Iliad* to the *Aeneid*, to *Othello*, to *Huckleberry Finn*, to *To Kill a Mockingbird*.

As a result, great literature at Seven Oaks will be studied *philosophically*. Literature will be discussed as it has been written. Students will come to understand love and hate, victory and defeat, justice and injustice, beauty and ugliness, temperance and intemperance, courage and cowardice, and glory and shame—by reading and wrestling with the great stories and characters of Western literature. Thus they will gain insights into their own complex human souls and—we hope—be inspired to be great as well as good.

Courses may include but are not limited to:

- Classical Literature and Composition
- European Literature and Composition
- American Literature and Composition
- English Language and Composition
- British Literature and Composition

Intensive and remedial courses will be offered. See Chart Below.

<p>9th grade (2 courses): Classical Literature: Students will read, analyze, and discuss classic works of literature including Homer, <i>The Iliad</i>, <i>The Odyssey</i>; Sophocles, <i>Oedipus Rex</i>; Plato, <i>The Republic</i> (on justice, parts of the soul, the Cave, Homer, and the ideal state); Vergil, <i>The Aeneid</i>; Horace, select poems; Shakespeare, <i>Coriolanus</i>.</p> <p>Composition: This course intends to foster elements of good writing: clear analytical thinking and a substantial grasp of basic grammatical and stylistic elements, argumentation, and grammatical analysis. Also covers revision of papers assigned in other classes, focusing on logical organization, clarity of expression, and depth of analysis.</p> <p>Basic Composition: This course will provide remediation and intensive support for students performing below grade level in writing. In addition to receiving assistance with writing assignments in content area classes, students will receive additional instruction in grammar, usage, and conventions and skills related to content, organization of ideas, and style.</p>
<p>10th grade: British Literature: Students will read, analyze and discuss classic works of British literature including Shelley’s <i>Frankenstein</i>; select tales from Chaucer, <i>Canterbury Tales</i>; Shakespeare’s <i>Hamlet</i> and sonnets; Milton’s <i>Paradise Lost</i> and poems; Jane Austen’s <i>Persuasion</i>; <i>A Tale of Two Cities</i> by Dickens; Romantic poetry.</p>
<p>11th grade: American Literature: Students will read, analyze and discuss classic works of American literature including Nathaniel Hawthorne short stories; Benjamin Franklin’s <i>The Autobiography</i>; Ralph Waldo Emerson’s essays and poems including “Self-Reliance”; Herman Melville’s <i>Moby Dick</i>; Emily Dickinson’s poems; Walt Whitman’s <i>Leaves of Grass</i>; Mark Twain’s <i>The Adventures of Huckleberry Finn</i> and short stories; twentieth-century short stories and poems, including Willa Cather, Flannery O’Connor, E. A. Poe, Robert Frost.</p>
<p>12th grade: Modern Literature Seminar: Students will read, analyze, and discuss the following works of literature: Genesis 2 and 3; Ten Commandments; Plato, <i>Apology</i>; Nietzsche, <i>Thus Spoke Zarathustra</i>; Allan Bloom on Nietzsche; Dostoyevsky, <i>Crime and Punishment</i>; Conrad, <i>Heart of Darkness</i>. Senior thesis and oral examination.</p>

Mathematics

Similar to the lower school, students in grades 7-12 will have a common math block for the purpose of remediation and enrichment when appropriate. Students will be placed in math courses by ability rather than grade level. Students who are identified as needing severe remediation by state and school

assessments in the middle and high grades will be offered small-group instruction in an intensive math course as mandated by the State.

As with the other subjects, math will be taught in a traditional manner. In addition to acquiring the necessary understanding of math facts, students will also learn the real math behind the algorithm. In other words, students will not simply perform the various operations without understanding what those operations really mean. Thus, a theoretical or conceptual approach will be taken, enabling students to understand mathematics as do real mathematicians. This approach, which used to be common in America, is now standard in Asian countries. Singapore Math builds in these concepts and will be used in helping to create the math courses in high school.

Courses may include but are not limited to:

- Algebra I and II
- Geometry
- Pre-Calculus
- Calculus
- Statistics

Students must pass the end-of-course assessment in Algebra I to receive credit toward graduation.

Advanced Placement courses will be offered in high school mathematics for advancement and students who require enrichment. This will allow advanced mathematics students the possibility of earning college credit in a challenging manner. Advanced Placement currently offers coursework in Algebra, Pre-calculus, Statistics, and Calculus. Seven Oaks will evaluate the needs of our students to determine which AP courses to offer when appropriate.

9th grade: Geometry: Weeks and Adkins, <i>A Course in Geometry: Plane and Solid</i> ; supplemented by readings from <i>Euclid's Elements</i> . Topics: geometric proof, triangles, constructions, perpendicular lines and planes, parallel lines, polygons, inequalities, ratio and proportion, congruent and similar figures, areas and volumes, circles, prisms, and pyramids.

10th grade: Algebra II: Weeks and Adkins, <i>Second Course in Algebra with Trigonometry</i> . Topics: the real number system, equations and inequalities, system of linear equations, factoring, algebraic fractions, quadratic equations, irrational numbers, radical equations, functions, graphs and variation, exponents and logarithms, introduction to the trigonometric functions, analytical geometry, equations of the second degree, polynomials, trigonometric equations, sequences and series.

11th grade: Pre-Calculus: Sullivan, <i>Precalculus</i> ; supplemented by Archimedes, <i>Lemmas on Circles</i> and Saul and Gelfand, <i>Trigonometry</i> . Topics: linear equations, functions, inverse functions, composite functions, graphs of functions, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, analytical trigonometry, polar coordinates, vectors, conic sections, rotation of axes, polar equations of conics, systems of equations and inequalities, sequences, mathematical induction, the binomial theorem.

12th grade: Calculus I: Paul A. Foerster, <i>Calculus, Concepts and Applications</i> . Topics: limits and continuity, derivatives, antiderivatives, definite and indefinite integrals, parametric functions, the fundamental theorem of calculus, the calculus of exponential and logarithmic functions, the calculus of growth and decay, the calculus of plane and solid figures, algebraic calculus techniques for the elementary functions, the calculus of motion. Students are required to take the AP Calculus AB exam.

Science

Students will take four years of science in the high school, two of which will have a laboratory component.

Students must pass Biology end-of-course exam to receive credit for course toward graduation. In the sciences, particularly physics, which relies so heavily on a strong math background, the school may find it necessary to have advanced and regular sections. Nonetheless, the non-advanced classes will still be rigorous and meet district/state standards in those subjects.

While making sure that students master the essential facts of the sciences, teachers will still employ to some degree a conceptual approach to the study of science, often introducing a topic with an inquiry-based lesson or experiment. Students should gain a genuine understanding of the physical world. Thus the goal is for students to be able to *explain* such complex scientific ideas and processes as genetic transmission, chemical bonding, atomic theory, force, and so on.

Courses may include but are not limited to:

- Biology
- Chemistry
- Physics
- Biology II
- Chemistry II
- Physics II

9th grade: BIOLOGY I: *Biology: A Molecular Approach* (BSCS); Watson and Crick, 1953 paper on structure of DNA; selected articles from *The New York Times*; selected essays from *Science News*. **Labs:** inferring gender in fruit flies; use of compound microscope; organisms and pH; beaded pinase (simulation); diffusion and cell size; leaf disk assay; why doctors test urine; onion cell osmosis; understanding DNA structure and replication (simulation); protein synthesis (simulation); onion mitosis; corn dihybrid genetics; Wisconsin Fast Plant seed germination; flower dissection; how viruses travel (simulation); using and formulating dichotomous keys; predator-prey relationship (simulation); comparative biochemistry (simulation); gene frequencies and natural selection (simulation); environmental factors.

10th grade: CHEMISTRY: Davis, Frey, Sarquis, Sarquis; *Modern Chemistry*. **Labs:** density of pennies; observing a candle flame; average atomic mass simulation using pennies; spectral lines of gases; periodic table development simulation; analysis of mixtures using nuts and bolts; molecular models; chemical names and formulas; determining the empirical formula of magnesium oxide; molecular concepts; analysis of a hydrate; Charles' law and the derivation of absolute zero; Boyle's law; triple point of carbon dioxide; vapor pressure of water; heat of solution; freezing point depression with antifreeze; properties of acids and bases; acid-base indicators; titration to determine percentage of acetic acid in vinegar; activity series of elements.

11th grade: PHYSICS: Serway and Faughn, *Physics*; selections and problems from Giancoli, *Physics: Principles with Applications*. **Labs:** freezing and melting of water, picket fence free fall, ball toss from ramp into bucket, motion profile of tossed ball, forces as vectors, static and kinetic friction, bungee jump acceleration, Boyle's law, the pendulum and simple harmonic motion, speed of sound, images and mirrors, optical properties of convex lenses, measuring the wavelength of a laser, electrostatics, Ohm's law, series and parallel circuits, energy storage in a capacitor, RC circuits, electrical energy and the efficiency of motors, building a motor.

12th grade: Biology II: Starr and Taggart, *Biology: The Unity and Diversity of Life*; Freeman, *Biological Science*; Senior Biology 1, 2 (Biozone); selections from The New York Times and Science News. **Labs:** population genetics and evolution (simulation); grouse: a species problem (simulation); social behavior in chickens (simulation); factors affecting dissolved oxygen concentrations in pond water;

diffusion and osmosis through dialysis tubing and various cell types; factors affecting action of the enzyme catalase; modeling protein structure; mitosis in onion and whitefish blastula cells; plant pigment separation through paper chromatography; measurement of the light reaction of photosynthesis by spinach chloroplasts; factors affecting carbon dioxide production by pea seeds; meiosis in *Sordaria*; patterns of inheritance in *Drosophila*; bacterial transformation; use of gel electrophoresis to differentiate plasmids cut by different restriction enzymes; physiology of the circulatory system; behavior of isopods. Students are required to take the AP Biology exam.

History

Students will take four years of history including one full credit in both government (1 credit) and economics (1 credit).

Though textbooks may be used to give students the background narrative of any historical period, the course will mostly be taught through the study of primary source documents. The sequence will adhere to the guidelines set forth in the Indiana Standards, ensuring that students receive one credit in both U.S. and world history and half credits in both economics and government.

The overarching principle governing the study of history will be human beings' attempts to achieve both freedom and justice in a constitutional regime, in short, self-government. Further, history will explore human beings' great conflicts and achievements. A great deal of attention will be given to the Western and American political, religious, intellectual, cultural, and economic traditions.

Courses may include but are not limited to:

- World History
- United States History
- European History
- Greek and Roman History

American Government

Civic education is fundamental to the mission of the classical school. At least one semester of government will be taught in the high school, normally in the junior year, while other electives in political philosophy may be offered as well.

As in the eighth-grade civics class, the government class in high school will be centered on the Constitution. Since the students in high school will be at a much higher reading level, the class will, in addition to the Constitution, read supporting documents, such as debates from the Constitutional Convention, *The Federalist*, important Supreme Court cases, and the speeches of American political figures reflecting upon the Constitution. Particular attention will be given to the original intent of the Framers of the Constitution by seeking to understand why they created a federal government with a separation of powers; limits upon the executive; a bicameral legislature with different terms and only one branch derived directly from the people; a system known as federalism with national, state, and local governments having different spheres of action; a list of *enumerated* powers; a bill of rights; and so on.

As in the history classes, a textbook may be used, particularly in order to familiarize students with the nuts and bolts of American politics (how a bill becomes a law, the party system, etc.), yet the course as a whole will be taught through original sources.

Economics

Students will take one semester of economics, normally in the junior year. The economics class will explore the basic principles of free markets: supply and demand, the division of labor, pricing, and incentives. Aspects of both micro and macroeconomics will be taught. The course may employ a textbook but will not be driven by a textbook approach. The fundamental idea behind the class is that man is an economic being: he is disposed to invent, build, and sell things in order to better his environment and improve his lot in life.

The relations between the market and the political regime will be explored, taking up the important question of what human efforts and enterprises should be performed by government and which should be performed by the free market. Just as in government class, the perspective of the Founders, and in this instance the era of the Founding Fathers (classical theory), will serve as the guiding light of the class.

9th grade: Western Civilization I: Herodotus, *The History*; Plutarch, *The Lives of the Noble Greeks and Romans*, select lives esp. Lysurgus, Solon, Themistocles, Pericles, Alcibiades; Thucydides, *The Peloponnesian War*; Aristotle, *Politics*; Plato, *Republic*; selections from Livy; Plutarch's *Lives*: Marius, Sulla, Caesar.

10th grade: Western Civilization II: Tacitus, *Germania*; Augustine, *Confessions* and *City of God* (selections on the two cities); *The Rule of Saint Benedict*; Einhard, *Life of Charlemagne*; feudal oaths; Walter Scott, "Chivalry"; documents from the Investiture Conflict; documents from the Crusades; *Life of St. Francis* (selections); Thomas Aquinas, *Summa Theologica* (selections). Selections from Petrarch's letters; Vergerius, "On Liberal Learning"; introduction to the *Decameron*. Art of Donatello, da Vinci, Michelangelo. Machiavelli, *The Prince*. Erasmus and Luther on freedom of the will; other Reformation documents. Various enlightenment authors including Locke, Smith, and Rousseau.

11th grade: American History: Tindall and Shi, *America*; Richard Hofstadter, *Great Issues in American History* (vols. 1-3); The Mayflower Compact; Cotton, "Answers to Queries from English Puritans"; documents on the Great Awakening; Paine, "Common Sense"; Inglis, "The True Interest of America"; The Declaration of Independence and U. S. Constitution; Hamilton, "Report on the Public Credit"; Jefferson, "On Agriculture"; Washington, "Farewell Address"; Jay's Treaty; Monroe, "1823 Message to Congress" (Monroe Doctrine); Calhoun, *On Nullification*; Stowe, *Uncle Tom's Cabin*, selections; Clay, Calhoun, Webster on the Compromise of 1850; Lincoln and Douglas on popular sovereignty; Lincoln, "Gettysburg Address" and "Second Inaugural;" the rise of big business, the Gilded Age, and Populism. Selected writings from Andrew Carnegie and William Jennings Bryan.

American Government I and II: James Q. Wilson, *American Government*. Sources: The U.S. Constitution; Madison, Hamilton, and Jay, *The Federalist* (selections); selections from Anti-Federalist authors such as Brutus, Federal Farmer, and Agrippa. Course also addresses landmark Supreme Court decisions (e.g., Dred Scott, McCulloch, Marbury, et al.), and addresses introductory elements of constitutional law.

12th grade: Modern European History: R. R. Palmer, *A History of the Modern World*. Sources: Rousseau, *Discourse on Inequality and Social Contract* (selections); Sieyès, *What is the Third Estate?*; *Deliberations of the Estates General*; "Declaration of the Rights of Man and of the Citizen"; selections from Burke and Paine. Marx and Engels, *The Communist Manifesto*; Lenin, *State and Revolution*; Ortega y Gasset, *Revolt of the Masses*. Other documents in 19th and 20th century European history on the following topics: Napoleon, economic and political liberty, revolutions of 1848, German unification, imperialism, nationalism, World War I, World War II, the Cold War in Europe.

American History 20th Century: A continuation of American history from 1900 on: Progressivism, America as a world power, World Wars I & II, the Cold War, civil rights, the Sixties and Vietnam, the

Reagan Revolution. Readings from Theodore Roosevelt, Woodrow Wilson, Calvin Coolidge, Franklin Roosevelt, Lyndon Johnson, Martin Luther King, Ronald Reagan, et al.

Introduction to Micro/Macro Economics: J. D. Gwartney, *Economics: Public and Private Choice*. The course will provide an examination of markets, prices, production, costs, competition, monopoly, wages, rent, interest, profits, unions, and international trade. Additionally, the economy as a whole based on aggregates of price, output, and employment will be studied. Additional text: H. Hazlitt, *Economics in One Lesson*.

Latin

Students will be required to take at least two years of Latin in the high school. For students coming out of the classical school's middle school, the normal pattern will be to take an advanced Latin course with the goal of getting to the level of translating original Latin. Still, there will be a need for a comprehensive review of Latin grammar. In the high school, this review will be achieved through the reading of a more demanding Latin textbook than the one used in the middle school, most likely Wheelock.

The goal of the Latin curriculum is, in part, to have students able to read at least some Virgil in the original after having read the Aeneid in translation in the freshman classical literature course. Students who enter high school with no or insufficient Latin background will take an accelerated two-year course using Wheelock's Latin. This course will enable them to begin translating original Latin texts in grade 10.

Grade 9: Advanced Latin I: Students review grammar as necessary using *Wheelock's Latin*. The main purpose of this course is translating Caesar's *Gallic Wars*. Vocabulary learned this year is tailored to the Caesar text. This course is mandatory for all Seven Oaks students, unless an alternate course of Latin study is arranged.

Grade 10: Advanced Latin II: Students review grammar as necessary using *Wheelock's Latin*. In this course, students' main focus is translating selections from Cicero (e.g., *de officiis*, *de legibus*, *de amicitia*, *orationes in Catilinam*) and other Roman writers and poets. This course is mandatory for all Seven Oaks students, unless an alternate course of Latin study is arranged.

Grade 11: Advanced Latin III: Students read and translate Virgil's *Aeneid* in preparation for the AP Latin Exam.

Grade 12: Advanced Latin IV: Students read and translate Ovid's *Metamorphoses* and Horace's *Odes*, as well as selections from other Roman poets and Medieval Latin writers.

Core Knowledge Sequence

Content and Skill Guidelines for Grades K–8



Core Knowledge[®]



PLEASE NOTE you are free:

- **to Share** — to copy, distribute and transmit the work
 - **to Remix** — to adapt the work
-

Under the following conditions:

- **Attribution** — You must attribute the work in the following manner:
This work is based on an original work of the Core Knowledge® Foundation made available through licensing under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. This does not in any way imply that the Core Knowledge Foundation endorses the work.
 - **Noncommercial** — You may not use this work for commercial purposes.
 - **Share Alike** — If you alter, transform, or build upon this work, you may distribute the resulting work only under the same or similar license to this one.
-

With the understanding that:

For any use or distribution, you must make clear to others the license terms of this work. The best way to do this is with a link to this web page:
<http://creativecommons.org/licenses/by-nc-sa/3.0/>



Core Knowledge[®]

© 2010 Core Knowledge Foundation

ISBN 978-1-890517-25-0

First printing of Core Knowledge Sequence for Preschool–Grade 8

Ninth printing of Core Knowledge Sequence for K–8

Prior editions © 1988, 1990, 1991, 1992, 1993, 1995, 1997, 1998, 1999 Core Knowledge Foundation

Third printing of Core Knowledge Preschool Sequence

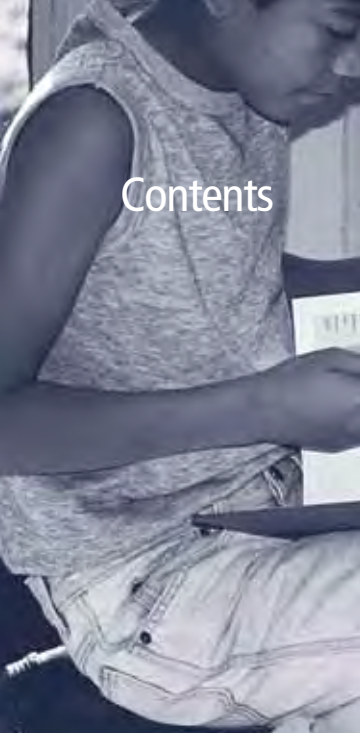
Prior editions © 1997, 2000 Core Knowledge Foundation

The Core Knowledge Foundation hereby grants permission for individual reproduction of the *Core Knowledge Sequence* for noncommercial purposes. No part of this document may be reproduced or used in any other form or by other means—graphic, electronic, mechanical, including recording, taping and information storage and retrieval systems—without prior written permission and license from the Core Knowledge Foundation.

Requests for permission and license should be directed to:

Core Knowledge Foundation
801 East High Street
Charlottesville, VA 22902
telephone: (434) 977-7550
fax: (434) 977-0021
e-mail: coreknow@coreknowledge.org
home page: www.coreknowledge.org

“Core Knowledge” is a trademark of the Core Knowledge Foundation.



Contents

A Letter from the Founder	i
Preface	
What's New in the 2010 Edition?	ii
What Support is Available for Implementation of Core Knowledge	v
Introduction	
What is the <i>Core Knowledge Sequence</i> ?	vi
Teaching the <i>Core Knowledge Sequence</i>	vi
The <i>Sequence</i> as the Core of the Curriculum	vi
The Consensus Behind the <i>Core Knowledge Sequence</i>	vii
Equal Access to Knowledge Promotes Excellence and Fairness	viii
Multiculturalism in the <i>Sequence</i>	viii
The Arts in the Curriculum	viii
Core Knowledge Schools	ix
Resources for Teaching the <i>Core Knowledge Sequence</i>	ix
Preschool	
Please flip this publication over to view the <i>Preschool Sequence</i> .	
Kindergarten	
Overview of Topics	2
Language Arts	3
World History and Geography	12
American History and Geography	13
Visual Arts	15
Music	16
Mathematics	18
Science	20
Grade 1	
Overview of Topics	24
Language Arts	25
World History and Geography	35
American History and Geography	37
Visual Arts	39
Music	41
Mathematics	43
Science	45
Grade 2	
Overview of Topics	50
Language Arts	51
World History and Geography	61
American History and Geography	63
Visual Arts	66
Music	68
Mathematics	70
Science	73
Grade 3	
Overview of Topics	78
Language Arts	79
World History and Geography	83
American History and Geography	85
Visual Arts	88
Music	90
Mathematics	92
Science	95
Grade 4	
Overview of Topics	100
Language Arts	101

World History and Geography	105
American History and Geography	109
Visual Arts	112
Music	114
Mathematics	116
Science	119
Grade 5	
Overview of Topics	124
Language Arts	125
World History and Geography	129
American History and Geography	133
Visual Arts	136
Music	138
Mathematics	140
Science	143
Grade 6	
Overview of Topics	148
English	149
World History and Geography	153
American History and Geography	158
Visual Arts	160
Music	162
Mathematics	164
Science	168
Grade 7	
Overview of Topics	174
English	175
History and Geography	180
Visual Arts	186
Music	188
Mathematics	190
Science	193
Grade 8	
Overview of Topics	198
English	199
History and Geography	204
Visual Arts	210
Music	212
Mathematics	214
Science	216
Appendix A	
Why Listening and Learning are Critical to Reading Comprehension.....	223
Appendix B	
Using Trade Books to Achieve College and Career Readiness: The Principles of Democracy.....	227
Appendix C	
Domains and Core Content Objectives for the <i>Core Knowledge Language Arts</i> Program, K–2.....	240
Appendix D	
Core Knowledge Grade-by-Grade Resource Recommendations.....	266
Core Knowledge at a Glance.....	268



A Letter from the Founder

A Letter from the Founder of the Core Knowledge Foundation, E. D. Hirsch, Jr.

March, 2010

Dear Friend of Core Knowledge,

The Board of Trustees of the Core Knowledge Foundation has long desired to make the *Core Knowledge Sequence* freely available for all non-commercial use. Frankly, what has held us back is simple economics. Even nonprofits need to pay bills, and the *Sequence*, our guide to the specific knowledge that forms the foundation of a sound, well-rounded education, has long been our biggest seller. Income from its sale allows us to break even so we can continue to advocate for a solid elementary curriculum and support a growing network of Core Knowledge schools.

While Core Knowledge is still worried about breaking even, times have changed. Today, more people recognize that a core curriculum is critical to significant educational improvement. Growing acceptance of our fundamental proposition is now being evidenced in the promising decision of several states to get behind a common core of K–12 standards in language arts and math. It would be contrary to our basic mission if we did not try to help this promising new effort prosper and succeed.

From its founding in 1986, Core Knowledge has worked to help teachers and parents understand that all of our most important goals in education—reading comprehension, language competence, and critical thinking—depend on broad knowledge, and cannot be successfully attained through language-arts instruction alone. To their credit, the authors of our emerging common core state standards understand this concept. However, standards alone are not sufficient to guarantee success. The effectiveness of the new language-arts standards will depend on the implementation of coherent, cumulative, and content-specific grade-by-grade curricula infused into language arts *and* the other subjects.

So the question has become not how can we give away our most valuable publication and foundational piece of intellectual property, but *how can we not?*

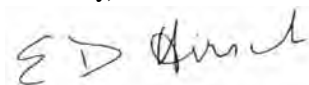
In the old sailing days you had to wait for the flood tide before setting forth, so you didn't miss the tide. That, according to Shakespeare, was true for more than sea voyages:

*There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.*

Or as Will Rogers put it: "Even though you are on the right track, you will get run over if you just sit there."

For those of you who are old hands on this voyage, thank you for your support throughout the years. If you are new to Core Knowledge, welcome aboard. I have never been more optimistic about the prospect for deep, meaningful, and lasting change in our schools.

Sincerely,



E. D. Hirsch, Jr.

Preface to the 2010 Edition of the *Core Knowledge Sequence*

With the prospect that many states will soon embrace a common core of K–12 standards in language arts and math, the future of the American public education system has never looked brighter than right now.

We at the Core Knowledge Foundation fervently believe that our experience over the past twenty years in championing the use of a coherent, cumulative, content-specific curriculum in schools throughout the United States can be of significant value to states and school districts nationwide looking to take the next step forward at this historic moment. The integration of common core standards in language arts and math with a coherent, cumulative, and content rich curriculum holds enormous promise. The Core Knowledge Foundation stands ready to assist states, school districts, and individual schools in taking this step and it is for that very reason that we have decided to disseminate the *Core Knowledge Sequence* as widely as possible at no cost.

We offer then this updated, 2010 online version of the *Core Knowledge Sequence*. Our original mission—Excellence and Equity for All Children—and the simple, yet powerful underlying premise of Core Knowledge, that knowledge builds on knowledge, remain unchanged. Nearly all of our most important goals for education—greater reading comprehension, the ability to think critically and solve problems, even higher test scores—are a function of the depth and breadth of our knowledge. Although current events and technology are constantly changing, there is a body of lasting knowledge and skills that form the core of a strong Preschool through Grade 8 curriculum. Explicit identification of what children should learn at each grade level ensures a coherent approach to building knowledge across all grade levels, making efficient and effective use of instructional time. Every child should learn the fundamentals of science, basic principles of government, important events in history, essential elements of mathematics, widely acknowledged masterpieces of art and music from around the world, and stories and poems passed down from generation to generation.

Over the past 20 years, we have been able to refine and fine tune the implementation of Core Knowledge, thanks to the effort and feedback of thousands of teachers and schools who have put the *Core Knowledge Sequence* into practice in *real classrooms* with *real students*. We have attempted to reflect our increased wisdom with regard to effective implementation in this 2010 edition of the *Sequence*.

What's New in the 2010 Edition?

We call your attention specifically to the following revisions.

- **Preschool and K–8 Guidelines in a Single Document**

The *Core Knowledge Sequence* for grades 1–5 was first released in 1988. The addition of kindergarten and the middle school grades soon followed, resulting in a single document known as the *Core Knowledge Sequence for K–8*, which is now in its ninth printing. In 1997, the Foundation published the *Core Knowledge Preschool Sequence* as a separate document that offered a coherent approach to teaching 3- to 5-year olds the specific content and skills that lay the foundation for future learning. The Core Knowledge Preschool program has flourished in its own right since that time.

By combining the *Preschool Sequence* with the K–8 guidelines, the Foundation is reasserting its firm commitment to a fully coherent approach to education that we believe is most effective when started at the earliest possible age.

The two-page spread “Core Knowledge at a Glance” in this document graphically displays an overview of this coherence across the grade levels.

- **Explicit Integration of Content and Skills**

In the early years, in order to distinguish ourselves from other education reform efforts and approaches that focused on process over subject-specific content, we identified the *Core Knowledge Sequence* as a “set of content guidelines.” Core Knowledge and the Core Knowledge Foundation became synonymous with content among knowledgeable educators. However, as sometimes happens, some began to portray Core Knowledge as an “either/or” proposition, i.e., if you were using Core Knowledge, you were focused only on content, not skills. Of course, nothing could be further from the truth. As successful Core Knowledge schools have always known, Core Knowledge is more accurately described as a “both/and” proposition: effective Core Knowledge teachers know that both content and skills are essential; they embed the teaching of critical skills within the content they share with their students. The skill objectives are most effectively targeted when they are anchored to the content in the context of a domain of knowledge. To that end, you will notice that we are now explicitly referring to the *Core Knowledge Sequence* as “Content and Skill Guidelines” for preschool–grade 8.

- **Increased Elaboration of the K–2 Language Arts Section of the *Sequence***

After many years of hoping that commercial textbook publishers would heed the cognitive science findings and insights about the link between reading comprehension and background knowledge and create new instructional materials for the teaching of reading, the Core Knowledge Foundation made the decision five years ago to raise the funds necessary to develop its own set of language arts materials. To date, we have created and field-tested comprehensive materials for grades K–2 that represent a revolutionary new approach to language arts instruction.

While these materials, the *Core Knowledge Language Arts (CKLA)* program, are not yet available for widespread sale, we have included the *CKLA* goals and objectives for kindergarten–grade 2 in this 2010 edition of the *Core Knowledge Sequence* (see Appendix C, “Domains and Core Content Objectives for the *Core Knowledge Language Arts* Program, K–2”). These goals and objectives represent our best insights into what effective language arts instruction should encompass—a broader view of “language” within the language arts block, the coherent integration of rich content, i.e., nonfiction, within the language arts block, and explicit, systematic instruction in phonics. Each of these points is further elaborated below and on the following page because we believe they are critical to realizing the full potential of the Core Knowledge program.

See the *Core Knowledge Language Arts* Program on our website for more complete information.

- **A Broader View of Language—Listening, Speaking, Reading, and Writing**

Shortly after a baby is born, an amazingly complex, interactive communication process begins between the infant and others in the child’s environment. Listening and speaking are the primary means of communication during the early years of a child’s development. It is important to understand that future reading and writing competencies are predicated on competencies in listening and speaking. Traditional language arts instruction has typically paid little attention to listening and speaking. This failure to focus on the development of oral language in language arts instruction is a serious oversight. The ability to read and write written language is highly correlated with students’ oral language proficiency and the ability to understand a text read aloud is a prerequisite for making sense of the same text in printed form. By listening to written text read aloud, children can experience the complexities of written language without expending cognitive energy on decoding. By then participating in rich, structured conversations with an adult following the read aloud, children are able to orally practice comparing, analyzing, and synthesizing ideas in written text in much the same way as they will be expected to do as independent readers in later grades. The decided advantage of this approach is that children are building these competencies in the

very early grades, instead of waiting for their own reading skills to evolve. This is especially true for those children who start school, for whatever reasons, with less experience with printed text. (See *Hart & Risley, The Early Catastrophe: The 30 Million Word Gap by Age 3* on our website.)

We are long past due the need to recognize that early language disadvantage persists and manifests itself as illiteracy when educational practices in elementary education fail to recognize the importance of oral language. It is essential that children build listening and speaking competency while also developing reading and writing skills.

See Appendix A, “Why Listening and Learning are Critical to Reading Comprehension,” for a further elaboration of why oral language is important and how the language arts block can be reconceptualized to develop listening and learning skills.

- **Coherent Integration of Content Within the Language Arts Block**

While various reading approaches are increasingly including nonfiction selections within the language arts block and textbook publishers are paying greater attention to reading in the content areas, they have typically failed to grasp the importance of developing a coherent approach to building knowledge within grades and across grade levels. Children hear and/or read about dinosaurs one day, the five senses the next time a nonfiction selection is presented, and Native Americans in the next unit. The selected texts have nothing in common except that they are nonfiction. This random approach to content area reading fails to recognize how domain knowledge builds either within a grade or cumulatively across grade levels. Incorporating nonfiction into language arts in this way is a missed opportunity and a waste of precious instructional time.

Nonfiction selections that are integrated into the language arts block must be presented in a coherent, nonfragmented way. In developing the *CKLA* materials, we have used the grade specific topics in history, science, music, and the arts from the *Core Knowledge Sequence* as the basis of our selections, thereby maintaining the content coherence that has been an integral part of Core Knowledge for the past 20 years. It has also been our experience in field testing *CKLA*, that nonfiction selections should focus on a single topic or domain over a sustained period of time—about two weeks—rather than intermingle selections on unrelated topics.

See Appendix A, “Why Listening and Learning are Critical to Reading Comprehension,” Appendix B, “Using Trade Books to Achieve College and Career Readiness: The Principles of Democracy,” and Appendix C, “Domains and Core Content Objectives for the *Core Knowledge Language Arts* Program, K–2,” for a detailed explanation of how to effectively and coherently incorporate content in the language arts block.

- **Explicit and Systematic Phonics Instruction**

The Core Knowledge Foundation has long advocated the importance of explicitly and systematically teaching young children the phonemic awareness and phonics skills necessary to decipher the written code. It is important that as teachers work to more intentionally include content within the language arts block, they not lose sight of the importance of teaching specific decoding skills, especially in the early grades. The *CKLA* materials use a synthetic phonics approach that has proven to be very effective in early field testing. The 2010 edition of the *Sequence* includes the grade specific decoding skills that are the focus of the *CKLA* materials for K–2. We plan to start development of *CKLA* materials for grades 3–5 in the near future and will post revised language arts goals for these grades as part of the online *Sequence* as soon as they are available.

The specific sequence of consonant and vowel sounds and spellings included in the *Sequence* at each grade level, K–2, represents what is taught in *CKLA* and is unique to

the *CKLA* materials. Until such time as these materials are available for sale, it may be difficult for schools to reproduce the teaching of this exact sequence of phonics skills at the designated grade levels. In the interim, we urge schools to use other materials that explicitly and systematically teach the same consonant and vowel sounds and spellings over the course of K–2, although when certain sounds and spellings are introduced may differ. See “Reading Program Recommendations” on our website for our suggestions as to which existing, commercially available materials do use a systematic and explicit approach to teaching phonics; despite the claims to include phonics, many, many basal reading programs do not do so in a systematic way.

What Support is Available for Implementation of Core Knowledge?

The Core Knowledge Foundation is ready and able to assist states, districts, and individual schools who want to join the ranks of those who are successfully implementing Core Knowledge. The newly revised Core Knowledge website (www.coreknowledge.org) offers a wealth of information on how to get started, support materials and professional development (also, see Appendix D, “Core Knowledge Grade-by-Grade Resource Recommendations” in this document) as well as many free online resources. Be sure to check out the new [online search engine](#) that will allow you to search for lesson plans on Core Knowledge topics!

Please do not hesitate to also contact us directly by phone (434-977-7550) or by e-mail: (coreknow@coreknowledge.org).

Introduction

WHAT IS THE *CORE KNOWLEDGE SEQUENCE*?

The *Core Knowledge Sequence* is a detailed outline of specific content and skills to be taught in language arts, history, geography, mathematics, science, and the fine arts. As the core of a school's curriculum, it is intended to provide a coherent, content specific foundation of learning, while allowing flexibility to meet local needs.

The *Sequence* represents an effort to describe and state the *specific* core of shared knowledge that all children should learn in U.S. schools, and that speakers and writers assume their audience knows. It should be emphasized that the *Core Knowledge Sequence* is not a list of facts to be memorized. Rather, it is a guide to *coherent content* from grade to grade, designed to encourage *cumulative* academic progress as children build their *knowledge and skills* from one year to the next.

The *Core Knowledge Sequence* is distinguished by its specificity. While other standards provide general guidelines concerning what students should be able to do, they typically offer little help to teachers in detailing specific content or skills. The *Sequence* provides a solid foundation on which to build instruction. Moreover, because the *Sequence* offers a coherent plan that builds year by year, it helps prevent the many repetitions and gaps in instruction that often result from vague curricular guidelines.

TEACHING THE *CORE KNOWLEDGE SEQUENCE*

"Students will comprehend, evaluate, and respond to works of literature and other kinds of writing which reflect their own cultures and developing viewpoints as well as those of others, using prior knowledge to extend reading ability and comprehension."

This language arts standard is fairly typical of many performance standards. It is broad enough that disagreement is difficult—students *should* be able to comprehend, evaluate and respond to works of literature—but offers little help to teachers in planning units and lessons.

Standards typically describe what students should be able to do, but not what students should know. The content-rich, thoughtfully designed *Core Knowledge Sequence* complements state standards by offering a concrete curriculum to guide teaching and learning. Instead of spending hours researching and planning what to teach, teachers are freed to think more creatively about how to teach. They know what children have learned in previous grades and what they will need in succeeding grades. They can avoid useless repetition. They are less likely to be confronted by big gaps in what students have learned.

THE *SEQUENCE* AS THE CORE OF THE CURRICULUM

The *Core Knowledge Sequence* is not meant to outline the whole of a school's curriculum, but rather to provide a coherently organized plan for content and skills instruction, while remaining flexible enough to not exclude locally determined or other required content and skills.

Effective Core Knowledge teachers recognize that topics from the *Sequence* must not be eliminated or changed from one grade level to another. The topics in the *Sequence* have been carefully chosen to ensure educational equity. We want all students, advantaged and disadvantaged alike, to share in the common knowledge that can lead to success. "Picking and choosing" elements of the *Sequence*

or taking out topics can lead to the very inequities we wish to avoid. Core Knowledge is an integrated and sequenced curriculum that builds over time. Leaving out some of the building blocks will inevitably weaken the foundation for future learning. The Core Knowledge *Day-by-Day Planner* was designed to assist teachers in pacing and planning all topics on a given grade level, while providing a format in which you can add locally determined or other required content and skills. See Appendix D, “Core Knowledge Grade-by-Grade Resource Recommendations.”

THE CONSENSUS BEHIND THE *CORE KNOWLEDGE SEQUENCE*

The *Core Knowledge Sequence* is the result of a lengthy and rigorous process of research and consensus-building undertaken by the Core Knowledge Foundation, an independent, nonpartisan, nonprofit organization dedicated to excellence and fairness in early education.

To achieve a consensus on the topics to be included in the *Core Knowledge Sequence*, in 1986, the Foundation first analyzed the many reports issued by state departments of education and by professional organizations, such as the National Council of Teachers of Mathematics and the American Association for the Advancement of Science, which recommend general outcomes for elementary and secondary education. We also examined the knowledge and skills specified in the successful educational systems of several other countries, including France, Japan, Sweden, and Germany.

In addition, we formed an advisory board on multiculturalism that proposed the inclusion of diverse cultural traditions that American children should all share as part of their school-based common culture. We sent the resulting materials to three independent groups of teachers, scholars, and scientists around the country, asking them to create a master list of the core knowledge children should have learned by the end of the grade 6. About 150 teachers, including college professors, scientists, and administrators, were involved in this initial step.

These items were combined into a draft *Sequence*, and additional groups of teachers and specialists were asked to agree on a grade-by-grade sequence of the items. That draft sequence was then sent to some 100 educators and specialists who participated in a national conference that was called to hammer out a working agreement on core knowledge for the first six grades; kindergarten, grades 7 and 8, and preschool were subsequently added to the *Sequence*.

This important meeting took place in March 1990. The conferees were elementary school teachers, curriculum specialists, scientists, science writers, officers of national organizations, representatives of ethnic groups, district superintendents, and school principals from across the country. A total of 24 working groups decided on revisions to the draft sequence. The resulting provisional *Core Knowledge Sequence* was fine-tuned during a year of implementation at a pioneering school, Three Oaks Elementary in Lee County, Florida. Also, the Visual Arts and Music sections of the *Sequence* were further developed based on the research of the Core Knowledge Foundation, with the assistance of advisors and teachers.

Because the *Sequence* is intended to be a living document that provides a foundation of knowledge that speakers and writers assume their audiences know, it has been—and will continue to be periodically updated and revised. In general, however, there is more stability than change in the *Sequence*. (See E. D. Hirsch Jr.’s *Cultural Literacy* for a discussion of the inherent stability of the content of literate culture.)

EQUAL ACCESS TO KNOWLEDGE PROMOTES EXCELLENCE AND FAIRNESS

Only by specifying the knowledge that all children should share can we guarantee equal access to that knowledge. In our current system, disadvantaged children especially suffer from low expectations that translate into watered-down curricula. In schools teaching the *Core Knowledge Sequence*, however, disadvantaged children, like all children, are exposed to a coherent core of challenging, interesting knowledge. This provides a foundation for later learning, but also makes up the common ground for communication in our diverse society.

All the most successful educational systems in the world teach a core of knowledge in the early grades. As both research and common sense demonstrate, we learn new knowledge by building on what we already know. It is important to begin building foundations of knowledge in the early grades because that is when children are most receptive, and because academic deficiencies in the first eight grades can permanently impair the quality of later schooling.

MULTICULTURALISM IN THE *SEQUENCE*

Respect for the diversity in our population is fostered by the subjects specified in the *Core Knowledge Sequence*, which has been reviewed by distinguished scholars in the field of multicultural studies. Some people have urged the Foundation to make a separate listing of multicultural entries in this *Sequence*, but to do so would contradict our embrace of an inclusive, rather than divisive, multiculturalism. As Professor James Comer of Yale University has written in a review of E. D. Hirsch's *Cultural Literacy*,

... respect for cultural diversity is important but is best achieved when young people have adequate background knowledge of mainstream culture. In order for a truly democratic and economically sound society to be maintained, young people must have access to the best knowledge available so that they can understand the issues, express their viewpoints, and act accordingly.

The *Core Knowledge Sequence* is designed to provide “access to the best knowledge available,” including significant knowledge of diverse peoples and cultures. For a more detailed discussion of these issues, see E. D. Hirsch's essay, “Toward a Centrist Curriculum: Two Kinds of Multiculturalism in Elementary School” on our website.

THE ARTS IN THE CURRICULUM

The Core Knowledge Foundation sees the arts not as a peripheral part of the curriculum, but as an essential part of the knowledge all children should learn in the early grades.

Early instruction in the arts should be noncompetitive, and provide many opportunities to sing, dance, listen to music, play act, read and write poetry, draw, paint, and make objects. Equally important, children should be exposed to fine paintings, great music, and other inspiring examples of art. As children progress in their knowledge and competencies, they can begin to learn more about the methods and terminology of the different arts, and become familiar with an ever wider range of great artists and acknowledged masterworks.

Through attaining a basic knowledge of the arts, children are not only better prepared to understand and appreciate works of art, but also to communicate their ideas, feelings, and judgments to others. A good understanding of the arts grows out of at least three modes of knowledge—creative (i.e., directly making artworks), historical, and analytical. Early study of the arts should embrace all three modes with special emphasis on creativity and active participation.

The arts guidelines in the *Core Knowledge Sequence* are organized into two main sections: the Visual Arts and Music. While the *Sequence* does not present other arts such as dance or drama as separate disciplines, we acknowledge their importance and have incorporated them in other disciplines (for example, dance is in Music; drama, in Language Arts).

CORE KNOWLEDGE SCHOOLS

The Core Knowledge Foundation serves as the hub of a nationwide network of hundreds of Core Knowledge schools. Presentations and workshops are available to introduce Core Knowledge and to assist schools in the implementation of the *Core Knowledge Sequence*. Core Knowledge schools are dedicated to teaching solid academic content and skills to all children. To implement Core Knowledge, many people involved with the school's operations, including both staff and parents, need to engage in a great deal of thoughtful discussion and cooperative planning. Teachers make a commitment to teach all the topics in the *Sequence* at the assigned grade levels. This commitment ensures consistency, and helps avoid serious gaps in knowledge, and repetitions in instruction, as students progress through the grades.

The *Sequence* serves as the planning document in each classroom. Its high level of specificity proves useful not only when planning but also when communicating among staff members and with parents. Core Knowledge schools develop a school-wide plan to teach all of the topics in the *Sequence*. Typically this plan is developed over a period of two to three years, either by phasing in topics and subjects, or by adding additional grade levels each year. The Foundation holds national conferences to provide opportunities for networking with other Core Knowledge schools and obtaining new ideas for teaching the topics in the *Sequence*.

For more information on adopting or implementing the *Core Knowledge Sequence*, including recommended professional development, contact the Core Knowledge Foundation at 434-977-7550 or at coreknow@coreknowledge.org.

RESOURCES FOR TEACHING THE CORE KNOWLEDGE SEQUENCE

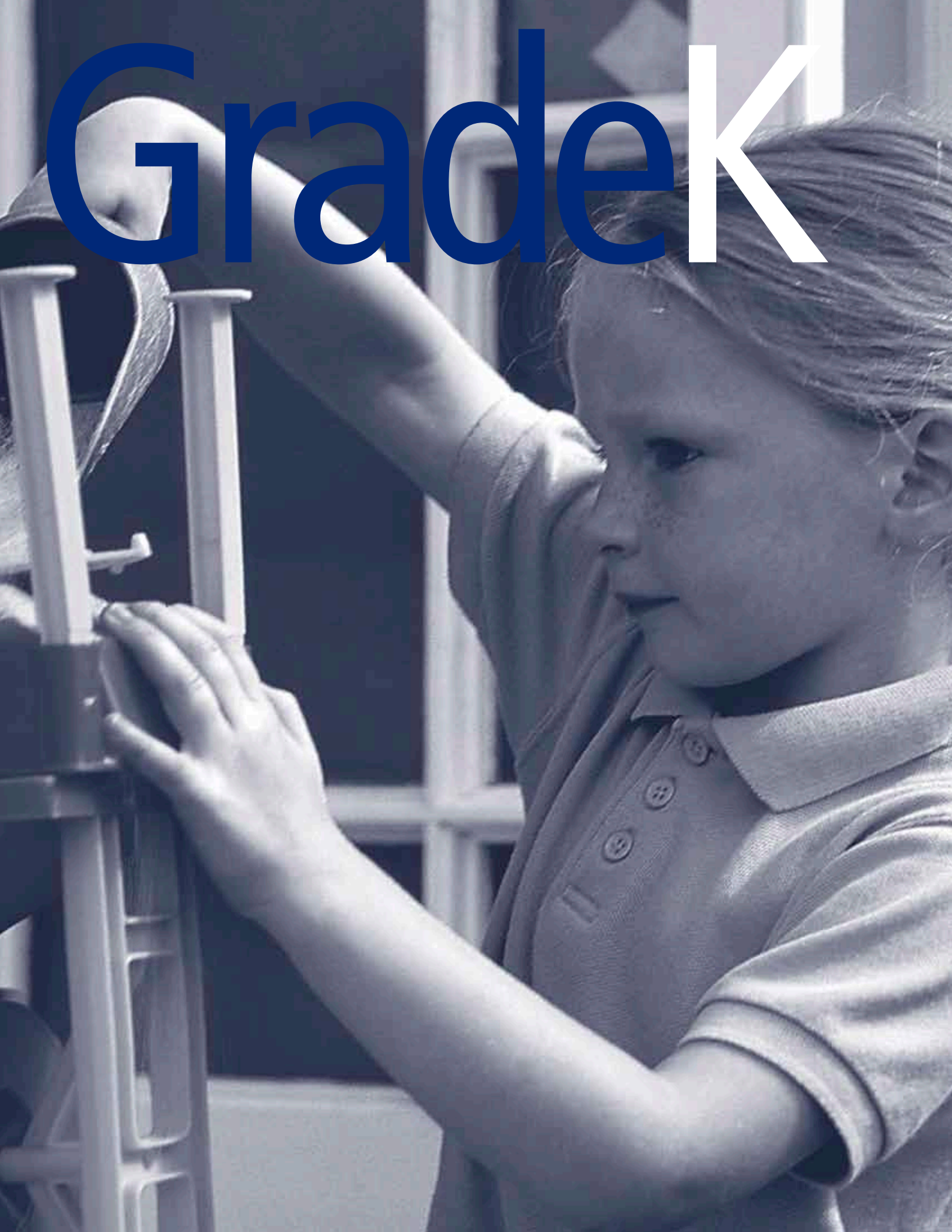
As an initial introduction to Core Knowledge, teachers and parents may wish to consult the books in the Core Knowledge series, titled *What Your Preschooler–Sixth Grader Needs to Know*, edited by E. D. Hirsch, Jr. The books are available at bookstores nationwide, or they may be ordered from the Core Knowledge Foundation by calling 1-800-238-3233.

Once a decision has been made to implement Core Knowledge, we strongly recommend the purchase of the grade specific *Core Knowledge Teacher Handbook* and the *Day-by-Day Planner*. A grade-by-grade listing of recommended resources for both teachers and students is included in Appendix D.

For a list of current resources and prices, visit the Core Knowledge website at www.coreknowledge.org or contact us directly at:

Core Knowledge Foundation
801 East High Street
Charlottesville, VA 22902
telephone: (434) 977-7550
fax: (434) 977-0021

e-mail: coreknow@coreknowledge.org
home page: www.coreknowledge.org



GradeK

Overview of Topics

Kindergarten

Language Arts

- I. Listening and Speaking
 - A. Classroom Discussion
 - B. Presentation of Ideas and Information
 - C. Comprehension and Discussion of Read-Alouds—All Texts
 - D. Comprehension and Discussion of Read-Alouds—Fiction, Drama, and Poetry
 - E. Comprehension and Discussion of Read-Alouds—Nonfiction and Informational Text
- II. Reading
 - A. Print Awareness
 - B. Phonological and Phonemic Awareness
 - C. Phonics: Decoding and Encoding
 - D. Oral Reading and Fluency
 - E. Reading Comprehension—All Texts
- III. Writing
- IV. Language Conventions
 - A. Handwriting and Spelling
 - B. Parts of Speech and Sentence Structure
 - C. Capitalization and Punctuation
- V. Poetry
 - A. Mother Goose and Other Traditional Poems
 - B. Other Poems, Old and New
- VI. Fiction
 - A. Stories
 - B. Aesop's Fables
 - C. American Folk Heroes and Tall Tales
 - D. Literary Terms
- VII. Sayings and Phrases

History and Geography

World:

- I. Geography: Spatial Sense
- II. An Overview of the Seven Continents

American:

- I. Geography
- II. Native American Peoples, Past and Present

- III. Early Exploration and Settlement
 - A. The Voyage of Columbus in 1492
 - B. The Pilgrims
 - C. July 4, "Independence Day"
- IV. Presidents, Past and Present
- V. Symbols and Figures

Visual Arts

- I. Elements of Art
 - A. Color
 - B. Line
- II. Sculpture
- III. Looking at and Talking about Works of Art

Music

- I. Elements of Music
- II. Listening and Understanding
- III. Songs

Mathematics

- I. Patterns and Classification
- II. Numbers and Number Sense
- III. Money
- IV. Computation
- V. Measurement
- VI. Geometry

Science

- I. Plants and Plant Growth
- II. Animals and Their Needs
- III. The Human Body
- IV. Introduction to Magnetism
- V. Seasons and Weather
- VI. Taking Care of the Earth
- VII. Science Biographies

Language Arts: Kindergarten

The *Common Core State Standards for English Language Arts* emphasize the critical importance of building nonfiction background knowledge in a coherent and sequenced way within and across grades. This can be accomplished most effectively, at each grade level, by integrating the topics from history, geography, science, and the arts in the *Core Knowledge Sequence* into the language arts block. Note that in the *Sequence*, there are many cross-curricular connections to history and science topics within Language Arts (e.g., poems, stories, and sayings), as well as to visual arts and music, which can and should be integrated into the applicable domain of study.

For Kindergarten, domains include: An Overview of the Seven Continents; Native American Peoples, Past and Present; Early Exploration and Settlement; Presidents, Past and Present; Plants and Plant Growth; Animals and Their Needs; The Human Body; Introduction to Magnetism; Seasons and Weather; Taking Care of the Earth.

NOTE: The objectives listed in sections I–IV of Language Arts below are consistent with the *Core Knowledge Language Arts* program and embed all of the skills and concepts within the *Common Core State Standards for English Language Arts*.

I. Listening and Speaking

Teachers: Shortly after a baby is born, an amazingly complex, interactive communication process begins between the infant and others in his/her environment. While it may seem like an obvious statement, it is nonetheless worth making the point that listening and speaking are the primary means of communication throughout the early years of a young child's development. It should be equally obvious that reading and writing competencies are predicated on competencies in listening and speaking. When a child enters kindergarten, however, traditional language arts instruction has typically accorded little, if any, attention to the ongoing development of children's listening and speaking ability. We have acted as if listening and speaking competencies are fully and firmly established and can be left behind, as reading and writing instruction begins. Nothing could be further from the truth. This omission in language arts instruction has been a serious oversight. We must remedy this oversight, deliberately elaborating and extending listening and speaking skills, while we simultaneously begin to introduce reading, and then writing. Children who are fortunate enough to participate in language arts instruction that recognizes the importance of continuing to build listening and speaking competency while also beginning reading and writing instruction will, in the end, be far more literate adults.

A. CLASSROOM DISCUSSION

- Participate in age appropriate activities involving listening and speaking.
- Speak clearly with volume appropriate to the setting.
- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc.
- Ask questions to clarify conversations, directions, exercises, and/or classroom routines.
- Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age.
- Identify and express physical sensations, mental states, and emotions of self and others.
- Understand and use language to express spatial and temporal relationships (*up, down, first, last, before, after*, etc.).
- Understand and use narrative language to describe people, places, things, locations, events, actions.
- Understand and use common sayings and phrases such as "Better safe than sorry" and "Look before you leap" (see page 11).

B. PRESENTATION OF IDEAS AND INFORMATION

- Follow multi-step, oral directions.
- Give simple directions.
- Provide simple explanations.
- Recite a nursery rhyme, poem or song independently.

C. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—ALL TEXTS

Teachers: Written text makes use of richer vocabulary and more complex syntax than conversational language. It is important that young children be exposed not only to the language of everyday conversation but also to the richer and more formal language of books. This can be done through frequent reading aloud. Helping young children develop the ability to listen to and understand written texts read aloud must be an integral part of any initiative designed to build literacy.

At the kindergarten level, a child's ability to understand what he hears far outpaces his ability to independently read and understand written text. By listening to stories or nonfiction selections read aloud, children can experience the complexities of written language without expending cognitive energy on decoding; they can likewise access deeper and more complex content knowledge than they are presently able to read independently.

Careful consideration should be given to the selection of books read aloud to ensure that the vocabulary and syntax presented is rich and complex. Leveled texts will not provide the rich language experience desired during read-alouds and should only be used as a starting point with students for whom English is a second language.

Grade appropriate read-aloud selections for poetry and fiction are included on pages 9–11. Nonfiction read-alouds should be selected on the basis of the history, science, music and visual art topics identified for kindergartners in the *Core Knowledge Sequence*, with emphasis on history and science read-alouds. It is strongly recommended that daily read-alouds focus on a single topic over a sustained period of time—about two weeks—rather than intermingling read-alouds on a variety of subjects. Careful consideration should be given to the order in which nonfiction read-alouds are presented to ensure that knowledge about a topic builds in a progressive and coherent way.

Following any read-aloud, children should participate in rich, structured conversations with an adult in response to the written text that has been read aloud. In this way, they can begin to orally practice comparing, analyzing, and synthesizing ideas in written text in much the same way as they will be expected to do as independent readers in the later grades.

- Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text, and poems.

Grasping Specific Details and Key Ideas

- Describe illustrations.
- Sequence four to six pictures illustrating events in a read-aloud.
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc.
- Retell key details.
- Ask questions to clarify information in a read-aloud.
- Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in a read-aloud.

Observing Craft and Structure

- Understand and use words and phrases heard in read-alouds.
- Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.
- Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.

Integrating Information and Evaluating Evidence

- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.
- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions.
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering “why” questions that require recognizing cause/effect relationships.
- Identify who is telling a story or providing information in a text.

D. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—FICTION, DRAMA, AND POETRY

- Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Change some story events and provide a different story ending.
- Create and tell an original story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Distinguish fantasy from realistic text in a story.
- Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.

E. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—NONFICTION AND INFORMATIONAL TEXT

Teachers: Select nonfiction read-aloud topics from the kindergarten history, science, music, and visual arts topics listed on pages 12–21, with emphasis on history and science.

- Retell important facts and information from a nonfiction read-aloud.
- With assistance, categorize and organize facts and information within a given topic.
- With assistance, create and interpret timelines and lifelines related to read-alouds.
- Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.

II. Reading

A. PRINT AWARENESS

- Demonstrate understanding that what is said can be written and that the writing system is a way of writing down sounds.
- Demonstrate understanding of directionality (left to right, return sweep, top to bottom, front to back).
- Identify the parts of books and function of each part (front cover, back cover, title page, table of contents).
- Demonstrate correct book orientation by holding book correctly and turning pages.
- Recognize that sentences in print are made up of separate words.
- Understand that words are separated by spaces.
- Distinguish letters, words, sentences, and stories.
- Demonstrate understanding of basic print conventions by tracking and following print word for word when listening to text read aloud.
- Demonstrate understanding that the sequence of letters in a written word represents the sequence of sounds in the spoken word.
- Recognize and name the 26 letters of the alphabet in both their upper-case and lower-case forms.

- Say the letters of the alphabet in order, either in song or recitation.

B. PHONOLOGICAL AND PHONEMIC AWARENESS

- Identify environmental sounds, e.g., keys jingling, scissors cutting, clapping.
- Identify whether pairs of environmental sounds are the same or different.
- Count the number of environmental sounds heard, e.g., clapping, rhythm band - instruments. -
- Orally segment sentences into discrete words.
- Demonstrate understanding that words are made up of sequences of sounds.
- Demonstrate understanding that vowel sounds are produced with the mouth open and airflow unobstructed, whereas consonant sounds involve closing parts of the mouth and blocking the air flow.
- Given a pair of spoken words, select the one that is longer (i.e., contains more phonemes).
- In riddle games, supply words that begin with a target phoneme.
- Indicate whether a target phoneme is or is not present in the initial/medial/final position of a spoken word, e.g., hear /m/ at the beginning of *mat* and /g/ at the end of *bag*.
- Listen to one-syllable words and tell the beginning or ending sounds, e.g., given *dog*, identify initial /d/ or final /g/.
- Recognize the same phoneme in different spoken words, e.g., /b/ in *ball*, *bug*, and *big*.
- Identify whether pairs of phonemes are the same or different, including pairs that differ only in voicing, e.g., /b/ and /p/.
- Orally blend two to three sounds to form a word, e.g., given the sounds /k/.../a/... /t/, blend to make *cat*.
- Segment a spoken word into phonemes, e.g., given *bat*, produce the segments/b//a//t/.
- Given a spoken word, produce another word that rhymes, e.g., given *hit*, supply *bit* or *mitt*.
- Identify the number of syllables in a spoken word.

C. PHONICS: DECODING AND ENCODING

Teachers: Learning to read requires understanding and mastering the written English code through explicit and systematic phonics instruction. Research suggests that phonics instruction is most effective when specific letter-sound relationships are taught and reinforced by having children both read and write the letter-sound correspondence being studied. Reading and writing—decoding and encoding—are complementary processes that ensure mastery of the written code.

- Demonstrate understanding that a systematic, predictable relationship exists between written letters (graphemes) and spoken sounds (phonemes).
- Blend individual phonemes to pronounce printed words.
- Understand that sometimes two or more printed letters stand for a single sound.
- Read and write any CVC word, e.g., *sit* or *cat*.
- Read and write one-syllable words containing common initial consonant clusters such as tr-, fl-, dr- and sp- and consonant digraphs such as ch-, sh-, th-, etc.
- Read and write words containing separated vowel graphemes, such as *late*, *bite*, *note*, *cute*.
- Read tricky spellings that can be sounded two ways, e.g., the letter 's' sounded /s/ as in *cats* and /z/ as in *dogs*.
- Read and write chains of one-syllable words in which one sound is added, substituted, or omitted, e.g., read at > cat > bat > bad > bid.
- Read at least 15 words generally identified as very high frequency words.

CONSONANT SOUNDS AND SPELLINGS TAUGHT IN KINDERGARTEN

/b/ spelled 'b' as in *boy*, 'bb' as in *tubby*
 /d/ spelled 'd' as in *dog*, 'dd' as in *madder*
 /f/ spelled 'f' as in *fun*, 'ff' as in *stuff*
 /g/ spelled 'g' as in *get*, 'gg' as in *egg*
 /h/ spelled 'h' as in *him*
 /j/ spelled 'j' as in *jump*
 /k/ spelled 'c' as in *cat*, 'k' as in *kitten*, 'ck' as in *sick*, 'cc' as in *moccasin*
 /l/ spelled 'l' as in *lip*, 'll' as in *sell*
 /m/ spelled 'm' as in *mad*, 'mm' as in *hammer*
 /n/ spelled 'n' as in *net*, 'nn' as in *funny*
 /p/ spelled 'p' as in *pet*, 'pp' as in *happy*
 /r/ spelled 'r' as in *red*, 'rr' as in *earring*
 /s/ spelled 's' as in *sit*, 'ss' as in *dress*
 /t/ spelled 't' as in *top*, 'tt' as in *butter*
 /v/ spelled 'v' as in *vet*
 /w/ spelled 'w' as in *wet*
 /x/ spelled 'x' as in *tax*
 /y/ spelled 'y' as in *yes*
 /z/ spelled 'z' as in *zip*, 'zz' as in *buzz*, 's' as in *dogs*
 /ch/ spelled 'ch' as in *chop*
 /sh/ spelled 'sh' as in *ship*
 /th/ spelled 'th' as in *thin*
 /th/ spelled 'th' as in *then*
 /qu/ spelled 'qu' as in *quick*
 /ng/ spelled 'ng' as in *sing*, 'n' as in *pink*

VOWEL SOUNDS AND SPELLINGS TAUGHT IN KINDERGARTEN

/a/ spelled 'a' as in *cat*
 /e/ spelled 'e' as in *get*
 /i/ spelled 'i' as in *hit*
 /o/ spelled 'o' as in *hot*
 /u/ spelled 'u' as in *but*
 /ae/ spelled 'a_e' as in *cake*
 /ee/ spelled 'ee' as in *bee*
 /ie/ spelled 'i_e' as in *bike*
 /oe/ spelled 'o_e' as in *note*
 /ue/ spelled 'u_e' as in *cute*
 /er/ spelled 'er' as in *her*
 /ar/ spelled 'ar' as in *car*
 /or/ spelled 'or' as in *for*

D. ORAL READING AND FLUENCY

- Read decodable stories that incorporate the specific code knowledge that has been taught.
- Use phonics skills in conjunction with context to confirm or self-correct word recognition and understanding, rereading as necessary.
- Demonstrate understanding of and use commas and end punctuation while reading orally.
- Read aloud, alone, or with a partner at least 15 minutes each day.

E. READING COMPREHENSION—ALL TEXTS

Teachers: It is important to recognize that kindergartners are taught only some of the many letter-sound correspondences a reader needs to know to read a wide range of printed material. As a result, many kindergartners will be able to read independently only the simplest written text. At this grade level, mental energy will be primarily directed to the act of reading, i.e., decoding. A focus on the mechanics of decoding is appropriate and desirable at this early stage in the reading process. In kindergarten, attention to reading comprehension should be directed to ensuring a fundamental understanding of what has been read. At this grade level, it will generally be more effective and efficient to devote time to higher level thinking and comprehension skills at the listening and speaking level in response to written texts that are read aloud.

- Demonstrate understanding of simple decodable text after reading independently.

Grasping Specific Details and Key Ideas

- Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, etc.) about a text that has been read independently.
- Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.

Observing Craft and Structure

- Understand and use words and phrases from a text that has been read independently.

Integrating Information and Evaluating Evidence

- Prior to reading, identify what they know and have learned that may be related to the specific story or topic to be read.
- Use pictures accompanying the written text to check and support understanding.
- Make predictions prior to and while reading, based on the title, pictures, and/or text read thus far and then compare the actual outcomes to predictions.
- Identify who is telling a story or providing information in a text.

III. Writing

Teachers: It is important to recognize that of all the communication skills—listening, speaking, reading, and writing—writing is the most demanding and challenging, especially for kindergartners who are just learning not only the code, but the fine motor skills and letter strokes necessary to put something down on paper. Kindergartners can, however, express themselves in writing by drawing pictures and, as they begin to learn some of the code, copying or writing words, phrases, and sentences.

In addition, students can also participate in shared writing exercises modeled and scaffolded by an adult. The focus in shared writing should be on encouraging the students to verbally express themselves coherently and in complete sentences, as the teacher serves as a scribe.

Writing to Reflect Audience, Purpose and Task

- Draw pictures to represent a text that has been heard or read independently.
- Draw pictures to represent a preference or opinion.
- Write narratives, informative and explanatory texts, and offer an opinion through shared writing exercises.
- With assistance, add details to writing.
- Create a title or caption to accompany a picture and/or shared writing.

IV. Language Conventions

- Form letters, words, phrases and sentences to communicate thoughts and ideas.
- Apply basic spelling conventions.
- Use basic capitalization and punctuation in sentences to convey meaning.

A. HANDWRITING AND SPELLING

- Hold a pencil with a pincer grasp and make marks on paper.
- Trace, copy, and print from memory the 26 letters of the alphabet accurately in both their upper-case and lower-case forms.
- Write own name.
- Write from left to right, leaving spaces between words, and top to bottom using return sweep.
- Begin to write phonemically plausible spellings for words that cannot be spelled correctly with current code knowledge, e.g., write *bote* for *boat*, *sum* for *some*, *hunee* for *honey*.
- Write words, phrases, and sentences from dictation, applying phonics knowledge.

B. PARTS OF SPEECH AND SENTENCE STRUCTURE

- Use and understand question words, i.e., what, where, when, who, how.
- Form regular plural nouns by adding 's' or 'es', i.e., dog, dogs, wish, wishes.
- Demonstrate understanding of frequently occurring prepositions, i.e., *to/from*, *in/out*, *on/off*.
- Produce and expand complete sentences orally and in shared writing exercises.

C. CAPITALIZATION, AND PUNCTUATION

- Capitalize the first word in a sentence, the pronoun *I*.
- Identify and use end punctuation, including periods, question marks, and exclamation points.

V. Poetry

Note Regarding PRESCHOOL Content:

Some of the poems and stories specified here are appropriate for preschoolers. Indeed, one would hope that most preschoolers would come to kindergarten having heard, for example, some Mother Goose rhymes or the story of "Goldilocks and the Three Bears." However, as not all children attend preschool, and as home preparation varies, the *Core Knowledge Sequence* offers a core of familiar rhymes and stories for all kindergarten children. See also the *Core Knowledge Preschool Sequence*, available from the Core Knowledge Foundation.

Teachers: Children should be introduced to a varied selection of poetry with strong rhyme and rhythm. Children should hear these rhymes read aloud, and should say some of them aloud. Some rhymes may also be sung to familiar melodies. The poems listed here represent some of the most popular and widely anthologized titles; children may certainly be introduced to more Mother Goose rhymes beyond the selection below. Although children are not expected to memorize the following rhymes, they will delight in knowing their favorites by heart, and will experience a sense of achievement and satisfaction in being able to recite some of the rhymes.

A. MOTHER GOOSE AND OTHER TRADITIONAL POEMS

A Diller, A Dollar -
 Baa, Baa, Black Sheep -
 Diddle, Diddle, Dumpling -
 Early to Bed -
 Georgie Porgie -
 Hey Diddle Diddle -
 Hickory, Dickory, Dock -
 Hot Cross Buns -
 Humpty Dumpty -
 It's Raining, It's Pouring -
 Jack and Jill -
 Jack Be Nimble -
 Jack Sprat -
 Ladybug, Ladybug -
 Little Bo Peep -
 Little Boy Blue -

Little Jack Horner -
 Little Miss Muffet -
 London Bridge Is Falling Down -
 Mary, Mary, Quite Contrary -
 Old King Cole -
 Old Mother Hubbard -
 One, Two, Buckle My Shoe -
 Pat-a-Cake -
 Rain, Rain, Go Away -
 Ride a Cock-Horse -
 Ring Around the Rosey -
 Rock-a-bye, Baby -
 Roses Are Red -
 See-Saw, Margery Daw -
 Simple Simon -
 Sing a Song of Sixpence -
 Star Light, Star Bright -
 There Was a Little Girl -
 There Was an Old Woman Who Lived in a Shoe -
 This Little Pig Went to Market -
 Three Blind Mice -

Note: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose children to more poetry, old and new. To bring children into the spirit of poetry, read it aloud and encourage them to speak it aloud so they can experience the music in the words.

B . OTHER POEMS, OLD AND NEW

April Rain Song (Langston Hughes) -
 Happy Thought (Robert Louis Stevenson) -
 I Do Not Mind You, Winter Wind (Jack Prelutsky) -
 Mary Had a Little Lamb (Sara Josepha Hale) -
 The More It Snows (A. A. Milne) -
 My Nose (Dorothy Aldis) -
 Rain (Robert Louis Stevenson) -
 Three Little Kittens (Eliza Lee Follen) -
 Time to Rise (Robert Louis Stevenson) -
 Tommy (Gwendolyn Brooks) -
 Twinkle Twinkle Little Star (Jane Taylor) -

VI. Fiction

Teachers: While the following works make up a strong core of literature, the content of language arts includes not only stories, fables, and poems, but also the well-practiced, operational knowledge of how written symbols represent sounds, and how those sounds and symbols convey meaning. Thus, the stories specified below are meant to complement, not to replace, materials designed to help children practice decoding and encoding skills (see above, II. Reading and III. Writing).

The following works constitute a core of stories for this grade. In kindergarten, these stories are meant to be read-aloud selections. Expose children to many more stories, including classic picture books and read-aloud books. (In schools, teachers across grade levels should communicate their choices in order to avoid undue repetition.) Children should also be exposed to nonfiction prose: biographies, books on science and history, books on art and music, etc. And, children should be given opportunities to tell and write their own stories.

A. STORIES

The Bremen Town Musicians (Brothers Grimm) -
 Chicken Little (also known as “Henny-Penny”) -
 Cinderella (Charles Perrault) -
 Goldilocks and the Three Bears -
 How Many Spots Does a Leopard Have? (African folktale) -

King Midas and the Golden Touch -
 The Legend of Jumping Mouse (Native American: Northern Plains legend) -
 The Little Red Hen -
 Little Red Riding Hood -
 Momotaro: Peach Boy (Japanese folktale) -
 Snow White and the Seven Dwarfs -
 The Three Billy Goats Gruff -
 The Three Little Pigs -
 A Tug of War (African folktale) -
 The Ugly Duckling (Hans Christian Andersen) -
The Velveteen Rabbit (Margery Williams) -
 selections from *Winnie-the-Pooh* (A. A. Milne) -
 The Wolf and the Kids (Brothers Grimm) -

B. AESOP'S FABLES

The Lion and the Mouse
 The Grasshopper and the Ants
 The Dog and His Shadow
 The Hare and the Tortoise

C. AMERICAN FOLK HEROES AND TALL TALES

Johnny Appleseed
 Casey Jones

D. LITERARY TERMS

Teachers: As children become familiar with stories, discuss the following:

author -
 illustrator -

Note: Children will read more American folk heroes and tall tales in grade 2.

VII. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

A dog is man's best friend. -
 April showers bring May flowers. -
 Better safe than sorry. -
 Do unto others as you would have them do unto you. -
 The early bird gets the worm. -
 Great oaks from little acorns grow. -
 Look before you leap. -
 A place for everything and everything in its place. -
 Practice makes perfect. -
 [It's] raining cats and dogs. -
 Where there's a will there's a way. -

History and Geography: Kindergarten

Teachers: In kindergarten, children often study aspects of the world around them: the family, the school, the community, etc. The following guidelines are meant to broaden and complement that focus. The goal of studying selected topics in World History in Kindergarten is to foster curiosity and the beginnings of understanding about the larger world outside the child's locality, and about varied civilizations and ways of life. This can be done through a variety of means: story, drama, art, music, discussion, and more.

The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge includes a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures.

WORLD HISTORY AND GEOGRAPHY

I. Geography: Spatial Sense (working with maps, globes, and other geographic tools)

Teachers: Foster children's geographical awareness through regular work with maps and globes. Have students regularly locate themselves on maps and globes in relation to places they are studying. Children should make and use a simple map of a locality (such as classroom, home, school grounds, "treasure hunt").

- Maps and globes: what they represent, how we use them
- Rivers, lakes, and mountains: what they are and how they are represented on maps and globes
- Locate the Atlantic and Pacific Oceans.
- Locate the North and South Poles.

II. An Overview of the Seven Continents

Teachers: Help children gain a beginning geographic vocabulary and a basic sense of how we organize and talk about the world by giving names to some of the biggest pieces of land. Introduce children to the seven continents through a variety of methods and media (tracing, coloring, relief maps, etc.), and associate the continents with familiar wildlife, landmarks, etc. (for example, penguins in Antarctica; the Eiffel Tower in Europe). Throughout the school year, reinforce names and locations of continents when potential connections arise in other disciplines (for example, connect Grimm's fairy tales to Europe; voyage of Pilgrims to Europe and North America; story of "Momotaro—Peach Boy" to Asia [Japan]; study of Native Americans to North America).

Note: In later grades, children will continue to learn about all the continents as well as specific countries and peoples.

- Identify and locate the seven continents on a map and globe: -
 - Asia -
 - Europe -
 - Africa -
 - North America -
 - South America -
 - Antarctica -
 - Australia -

American History and Geography

AMERICAN HISTORY AND GEOGRAPHY

Teachers: The study of American history begins in grades K-2 with a brief overview of major events and figures, from the earliest days to recent times. A more in-depth, chronological study of American history begins again in grade 3 and continues onward. The term “American” here generally, but not always, refers to the lands that became the United States. Other topics regarding North, Central, and South America may be found in the World History and Geography sections of this Sequence.

I. Geography

- Name and locate the town, city, or community, as well as the state where you live.
- Locate North America, the continental United States, Alaska, and Hawaii.

II. Native American Peoples, Past and Present

Teachers: As children progress through the grades of the *Core Knowledge Sequence*, they will learn about many different Native American peoples in many different regions (such as **Pacific Northwest:** Kwakiutl, Chinook; **Plateau:** Nez Perce; **Great Basin:** Shoshone, Ute; **Southwest:** Dine [Navajo], Hopi, Apache, Zuni; **Plains:** Blackfoot, Comanche, Crow, Kiowa, Dakota, Lakota [Sioux], Cheyenne, Arapaho; **Eastern Woodlands:** Huron, Iroquois, Mohican, Delaware [Lenni Lenape], Susquehanna, Massachusetts, Wampanoag, Powhatan; **Southeast:** Cherokee, Seminole). In kindergarten, study at least **one** specific group of Native Americans. You might explore a local or regional tribe or nation, and compare it with one far away.

- Become familiar with the people and ways of life of at least one Native American tribe or nation, including: -
 - how they lived -
 - what they wore and ate -
 - the homes they lived in -
 - their beliefs and stories -
 - the current status of the tribe or nation -

III. Early Exploration and Settlement

A. THE VOYAGE OF COLUMBUS IN 1492

- Queen Isabella and King Ferdinand of Spain
- The Niña, Pinta, and Santa Maria
- Columbus’s mistaken identification of “Indies” and “Indians”
- The idea of what was, for Europeans, a “New World”

B. THE PILGRIMS

- The Mayflower
- Plymouth Rock
- Thanksgiving Day celebration

C. JULY 4, “INDEPENDENCE DAY”

- The “birthday” of our nation
- Democracy (rule of the people): Americans wanted to rule themselves instead of being ruled by a faraway king.
- Some people were not free: slavery in early America

See below, Symbols and
Figures: Mount Rushmore;
the White House.

IV. Presidents, Past and Present

Teachers: Introduce children to famous presidents, and discuss with them such questions as: What is the president? How does a person become president? Who are some of our most famous presidents, and what did they do that made them famous?

- George Washington -
The “Father of Our Country” -
Legend of George Washington and the cherry tree -
- Thomas Jefferson, author of Declaration of Independence
- Abraham Lincoln -
Humble origins -
“Honest Abe” -
- Theodore Roosevelt
- Current United States president

V. Symbols and Figures

- Recognize and become familiar with the significance of -
American flag -
Statue of Liberty -
Mount Rushmore -
The White House -

Visual Arts: Kindergarten

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

I. Elements of Art

Teachers: The generally recognized elements of art include line, shape, form, space, light, texture, and color. In kindergarten, introduce children to line and color. Engage students in recognizing and using different kinds of lines and colors, and point out lines and colors in nature. (You may also wish to observe shapes in art and nature—see Math: Geometry.)

A. COLOR

- Observe how colors can create different feelings and how certain colors can seem “warm” (red, orange, yellow) or “cool” (blue, green, purple)
- Observe the use of color in -
 Pieter Bruegel, *The Hunters in the Snow*
 Helen Frankenthaler, *Blue Atmosphere*
 Paul Gauguin, *Tahitian Landscape*
 Pablo Picasso, *Le Gourmet*

B. LINE

- Identify and use different lines: straight, zigzag, curved, wavy, thick, thin
- Observe different kinds of lines in -
 Katsushika Hokusai, *Tuning the Samisen*
 Henri Matisse, *Purple Robe and Anemones*
 Joan Miró, *People and Dog in the Sun*

II. Sculpture

- Recognize and discuss the following as sculptures: -
 Northwest American Indian totem pole -
 Statue of Liberty -
- Mobiles: Alexander Calder’s *Lobster Trap and Fish Tail*

III. Looking at and Talking about Works of Art

Teachers: After children have been introduced to some elements of art and a range of artworks and artists, engage them in looking at pictures and talking about them. Ask the children about their first impressions—what they notice first, and what the picture makes them think of or feel. Go on to discuss the lines and colors, details not obvious at first, why they think the artist chose to depict things in a certain way, etc.

- Observe and talk about -
 Pieter Bruegel, *Children’s Games*
 Mary Cassatt, *The Bath*
 Winslow Homer, *Snap the Whip*
 Diego Rivera, *Mother’s Helper*
 Henry O. Tanner, *The Banjo Lesson*

See also American History K:
Native Americans, re totem
pole.



Music: Kindergarten

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.

The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).

I. Elements of Music

- Through participation, become familiar with some basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
 - Recognize a steady beat; begin to play a steady beat.
 - Recognize that some beats have accents (stress).
 - Move responsively to music (marching, walking, hopping, swaying, etc.).
 - Recognize short and long sounds.
 - Discriminate between fast and slow.
 - Discriminate between obvious differences in pitch: high and low.
 - Discriminate between loud and soft.
 - Recognize that some phrases are the same, some different.
 - Sing unaccompanied, accompanied, and in unison.

II. Listening and Understanding

Teachers: To encourage listening skills and the beginnings of understanding, play various kinds of music often and repeatedly. In the kindergarten classroom, music can be played for enjoyment, to accompany activities, to inspire creative movement, etc. Expose children to a wide range of music, including children’s music, popular instrumental music, and music from various cultures.

- Recognize the following instruments by sight and sound: guitar, piano, trumpet, flute, violin, drum.
- Become familiar with the following works:
 - Edvard Grieg, “Morning” and “In the Hall of the Mountain King” from *Peer Gynt*
 - Victor Herbert, “March of the Toys” from *Babes in Toyland*
 - Richard Rodgers, “March of the Siamese Children” from *The King and I*
 - Camille Saint-Saëns, *Carnival of the Animals*

Note: Grieg’s “In the Hall of the Mountain King” is a good work to illustrate dynamics (loud and quiet), as well as tempo (slow and fast).

III. Songs

Teachers: See also Language Arts, Mother Goose poems. A number of the poems may be sung to familiar melodies.

The Bear Went Over the Mountain
Bingo
The Farmer in the Dell
Go In and Out the Window
Go Tell Aunt Rhody
Here We Go Round the Mulberry Bush
The Hokey Pokey
Hush Little Baby
If You’re Happy and You Know It
Jingle Bells

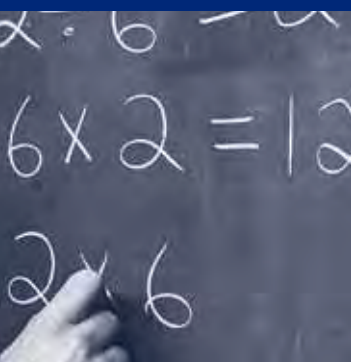
John Jacob Jingleheimer Schmidt -
 Kumbaya (also Kum Ba Ya) -
 London Bridge -
 Old MacDonald Had a Farm -
 Row, Row, Row Your Boat -
 This Old Man -
 Twinkle Twinkle Little Star -
 The Wheels on the Bus -

Teachers: You may wish to supplement the songs listed above with songs from the *Core Knowledge Preschool Sequence*, as follows:

A Tisket, A Tasket
 Are You Sleeping? -
 Blue-Tail Fly (Jimmie Crack Corn) -
 Do Your Ears Hang Low? -
 Did You Ever See a Lassie? -
 Eensy, Weensy Spider -
 Five Little Ducks That I Once Knew -
 Five Little Monkeys Jumping On the Bed -
 Happy Birthday to You -
 Head and Shoulders, Knees and Toes -
 Here is the Beehive -
 I Know an Old Lady -
 I'm a Little Teapot -
 Kookaburra -
 Lazy Mary -
 Looby Loo -
 Oats, Peas, Beans and Barley Grow -
 Oh, Do You Know the Muffin Man? -
 Oh Where, Oh Where, Has My Little Dog Gone? -
 One Potato, Two Potato -
 Open, Shut Them -
 Pop Goes the Weasel -
 Teddy Bear, Teddy Bear, Turn Around -
 Teddy Bears Picnic -
 Where is Thumbkin? -
 Who Stole the Cookie from the Cookie Jar? -
 You Are My Sunshine -

Mathematics: Kindergarten

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving “higher order” skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.



I. Patterns and Classification

- Establish concepts of likeness and difference by sorting and classifying objects according to various attributes: size, shape, color, amount, function, etc.
- Define a set by the common property of its elements.
- In a collection of objects that includes a given set and an item that does not belong, indicate which item does not belong.
- Moving from concrete objects to pictorial representations, recognize patterns and predict the extension of a pattern.
- Extend a sequence of ordered concrete objects.

II. Numbers and Number Sense

- Using concrete objects and pictorial representations, compare sets: -
same as (equal to) -
more than -
less than -
most -
least -
- Count
forward from 1 to 31, first beginning with 1, and later from any given number
backward from 10
from 1 to 10 by twos
by fives and tens to 50
- Write numbers 1 to 31 (with special attention to the difference between certain written symbols, such as 6 and 9; 2 and 5; 1 and 7; 12 and 21, etc.).
- Count and write the number of objects in a set.
- Given a number, identify one more, one less.
- Identify ordinal position, first (1st) through sixth (6th).
- Identify pairs.
- Interpret simple pictorial graphs.
- Identify $\frac{1}{2}$ as one of two equal parts of a region or object; find $\frac{1}{2}$ of a set of concrete objects.

III. Money

- Identify pennies, nickels, dimes, and quarters.
- Identify the one-dollar bill.
- Identify the dollar sign (\$) and cents sign (¢).
- Write money amounts using the cents sign (¢).

IV. Computation

- Add and subtract to ten, using concrete objects.
- Recognize the meaning of the plus sign (+).
- Subtraction: the concept of “taking away”; recognize the meaning of the minus sign (-).

V. Measurement

- Identify familiar instruments of measurement, such as ruler, scale, thermometer.
- Compare objects according to:
 - Linear measure
 - long and short; longer than, shorter than
 - measure length using non-standard units
 - begin to measure length in inches
 - height: taller than, shorter than
 - Weight
 - heavy, light
 - heavier than, lighter than
 - Capacity (volume)
 - full and empty
 - less full than, as full as, fuller than
 - Temperature: hotter and colder
- Time
 - Sequence events: before and after; first, next, last.
 - Compare duration of events: which takes more or less time.
 - Read a clock face and tell time to the hour.
 - Know the days of the week and the months of the year.
 - Orientation in time: today, yesterday, tomorrow; morning, afternoon; this morning vs. yesterday morning, etc.

VI. Geometry

- Identify left and right hand.
- Identify top, bottom, middle.
- Know and use terms of orientation and relative position, such as: -
 - closed, open -
 - on, under, over -
 - in front, in back (behind) -
 - between, in the middle of -
 - next to, beside -
 - inside, outside -
 - around -
 - far from, near -
 - above, below -
 - to the right of, to the left of -
 - here, there -
- Identify and sort basic plane figures: square, rectangle, triangle, circle.
- Identify basic shapes in a variety of common objects and artifacts (windows, pictures, books, buildings, cars, etc.).
- Recognize shapes as the same or different.
- Make congruent shapes and designs.
- Compare size of basic plane figures (larger, smaller).

Science: Kindergarten

Teachers: Effective instruction in science requires hands-on experience and observation. In the words of the 1993 report from the American Association for the Advancement of Science, *Benchmarks for Science Literacy*, "From their very first day in school, students should be actively engaged in learning to view the world scientifically. That means encouraging them to ask questions about nature and to seek answers, collect things, count and measure things, make qualitative observations, organize collections and observations, discuss findings, etc."

While experience counts for much, book learning is also important, for it helps bring coherence and order to a child's scientific knowledge. Only when topics are presented systematically and clearly can children make steady and secure progress in their scientific learning. The child's development of scientific knowledge and understanding is in some ways a very disorderly and complex process, different for each child. But a systematic approach to the exploration of science, one that combines experience with book learning, can help provide essential building blocks for deeper understanding at a later time.



I. Plants and Plant Growth

Teachers: Through reading aloud, observation, and activities such as growing plants from seeds in varying conditions, explore the following with children:

- What plants need to grow: sufficient warmth, light, and water
- Basic parts of plants: seed, root, stem, branch, leaf
- Plants make their own food.
- Flowers and seeds: seeds as food for plants and animals (for example, rice, nuts, wheat, corn)
- Two kinds of plants: deciduous and evergreen
- Farming
 - How some food comes from farms as crops
 - How farmers must take special care to protect their crops from weeds and pests
 - How crops are harvested, kept fresh, packaged, and transported for people to buy and consume

II. Animals and Their Needs

Teachers: Through reading aloud, observation, and activities, explore with children the common characteristics and needs of animals, including:

- Animals, like plants, need food, water, and space to live and grow.
- Plants make their own food, but animals get food from eating plants or other living things.
- Offspring are very much (but not exactly) like their parents.
- Most animal babies need to be fed and cared for by their parents; human babies are especially in need of care when young.
- Pets have special needs and must be cared for by their owners.

III. The Human Body

- The five senses and associated body parts: -
 - Sight: eyes -
 - Hearing: ears -
 - Smell: nose -
 - Taste: tongue -
 - Touch: skin -
- Taking care of your body: exercise, cleanliness, healthy foods, rest

IV. Introduction to Magnetism

Teachers: Through reading aloud, observation, and experiments with magnets, introduce children to the idea that there are forces we cannot see that act upon objects. Children should:

- Identify familiar everyday uses of magnets (for example, in toys, in cabinet locks, in “refrigerator magnets,” etc.).
- Classify materials according to whether they are or are not attracted by a magnet.

V. Seasons and Weather

Teachers: The emphasis in kindergarten should be on observation and description; technical explanations of meteorological phenomena should be taken up in later grades; see grades 2 and 4 for more detailed study of Meteorology.

- The four seasons
- Characteristic local weather patterns during the different seasons
- The sun: source of light and warmth
- Daily weather changes
 - Temperature: thermometers are used to measure temperature
 - Clouds
 - Rainfall: how the condition of the ground varies with rainfall; rainbows
 - Thunderstorms: lightning and thunder, hail, safety during thunderstorms
 - Snow and snowflakes, blizzard

VI. Taking Care of the Earth

- Conservation: Some natural resources are limited, so people must be careful not to use too much of them (example: logging and reforestation).
- Practical measures for conserving energy and resources (for example, turning off unnecessary lights, tightly turning off faucets, etc.)
- Some materials can be recycled (for example, aluminum, glass, paper).
- Pollution (for example, littering, smog, water pollution) can be harmful, but if people are careful they can help reduce pollution.

VII. Science Biographies

George Washington Carver (botanist/discovered ways to keep soil rich) -
 Jane Goodall (studied chimpanzees) -
 Wilbur and Orville Wright (made first airplane) -

Grade 1



Overview of Topics

Grade 1

Language Arts

- I. Listening and Speaking
 - A. Classroom Discussion
 - B. Presentation of Ideas and Information
 - C. Comprehension and Discussion of Read-Alouds—All Texts
 - D. Comprehension and Discussion of Read-Alouds—Fiction, Drama, and Poetry
 - E. Comprehension and Discussion of Read-Alouds—Nonfiction and Informational Text
- II. Reading
 - A. Print Awareness
 - B. Phonemic Awareness
 - C. Phonics: Decoding and Encoding
 - D. Oral Reading and Fluency
 - E. Reading Comprehension—All Texts
 - F. Reading Comprehension—Fiction, Drama, and Poetry
 - G. Reading Comprehension—Nonfiction and Informational Text
- III. Writing
 - A. Narrative Writing
 - B. Informative/Explanatory Writing
 - C. Persuasive Writing (Opinion)
- IV. Language Conventions
 - A. Handwriting and Spelling
 - B. Parts of Speech and Sentence Structure
 - C. Capitalization and Punctuation
- V. Poetry
- VI. Fiction
 - A. Stories
 - B. Aesop's Fables
 - C. Different Lands, Similar Stories
 - D. Literary Terms
- VII. Sayings and Phrases

History and Geography

World:

- I. Geography
 - A. Spatial Sense
 - B. Geographical Terms and Features
- II. Early World Civilizations
 - A. Mesopotamia: The "Cradle of Civilization"
 - B. Ancient Egypt
 - C. History of World Religions
- III. Modern Civilization and Culture: Mexico
 - A. Geography
 - B. Culture

American:

- I. Early People and Civilizations
 - A. The Earliest People: Hunters and Nomads
 - B. Early American Civilizations

- II. Early Exploration and Settlement
 - A. Columbus
 - B. The Conquistadors
 - C. English Settlers
- III. From Colonies to Independence: The American Revolution
- IV. Early Exploration of the American West
- V. Symbols and Figures

Visual Arts

- I. Art from Long Ago
- II. Elements of Art
 - A. Color
 - B. Line
 - C. Shape
 - D. Texture
- III. Kinds of Pictures: Portrait and Still Life

Music

- I. Elements of Music
- II. Listening and Understanding
 - A. Musical Terms and Concepts
 - B. Music Can Tell a Story
 - C. American Musical Traditions (Jazz)
- III. Songs

Mathematics

- I. Patterns and Classification
- II. Numbers and Number Sense
- III. Money
- IV. Computation
 - A. Addition
 - B. Subtraction
 - C. Solving Problems and Equations
- V. Measurement
- VI. Geometry

Science

- I. Living Things and Their Environments
 - A. Habitats
 - B. Oceans and Undersea Life
 - C. Environmental Change and Habitat Destruction
 - D. Special Classifications of Animals
- II. The Human Body
 - A. Body Systems
 - B. Germs, Diseases, and Preventing Illness
- III. Matter
- IV. Properties of Matter: Measurement
- V. Introduction to Electricity
- VI. Astronomy
- VII. The Earth
 - A. Geographical Features of the Earth's Surface
 - B. What's Inside the Earth
- VIII. Science Biographies

Language Arts: Grade 1

The *Common Core State Standards for English Language Arts* emphasize the critical importance of building nonfiction background knowledge in a coherent and sequenced way within and across grades. This can be accomplished most effectively, at each grade level, by integrating the topics from history, geography, science, and the arts in the *Core Knowledge Sequence* into the language arts block. Note that in the *Sequence*, there are many cross-curricular connections to history and science topics within Language Arts (e.g., poems, stories, and sayings), as well as to visual arts and music, which can and should be integrated into the applicable domain of study.

For Grade 1, domains include: Early World Civilizations; Modern Civilization and Culture: Mexico; Early American Civilizations; Early Exploration and Settlement; From Colonies to Independence: The American Revolution; Early Exploration of the American West; Living Things and Their Environments; The Human Body; Matter; Introduction to Electricity; Astronomy: Introduction to the Solar System; The Earth.

NOTE: The objectives listed in sections I–IV of Language Arts below are consistent with the *Core Knowledge Language Arts* program and embed all of the skills and concepts within the *Common Core State Standards for English Language Arts*.

I. Listening and Speaking

Teachers: Traditional language arts instruction has typically accorded little, if any, attention to the on-going development of children's listening and speaking ability. This failure to focus on the development of oral language in language arts instruction has been a serious oversight. Literacy, the ability to read and write written language, is highly correlated with students' oral language proficiency, and the ability to understand a text read aloud is a prerequisite for making sense of the same text in printed form. It is therefore essential that children build listening and speaking competency while also developing reading and writing skills.

A. CLASSROOM DISCUSSION

- Participate in age appropriate activities involving listening and speaking.
- Speak clearly with volume appropriate to the setting.
- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc.
- Ask questions to clarify conversations, directions, exercises, and/or classroom routines.
- Carry on and participate in a conversation over at least six turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age.
- Identify and express physical sensations, mental states, and emotions of self and others.
- Understand and use language to express spatial and temporal relationships (*up, down, first, last, before, after*, etc.).
- Understand and use narrative language to describe people, places, things, locations, events, actions.
- Understand and use common sayings and phrases such as "Hit the nail on the head" and "Let the cat out of the bag" (see page 34).

B. PRESENTATION OF IDEAS AND INFORMATION

- Follow multi-step, oral directions.
- Give simple directions.
- Provide simple explanations.
- Recite a nursery rhyme, poem or song independently, using appropriate eye contact, volume and clear enunciation.
- Give oral presentations about personal experiences, topics of interest, and/or stories, using appropriate eye contact, volume and clear enunciation.

C. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—ALL TEXTS

Teachers: Written text makes use of richer vocabulary and more complex syntax than conversational language. It is important that young children be exposed not only to the language of everyday conversation but also to the richer and more formal language of books. This can be done through frequent reading aloud. Helping young children develop the ability to listen to and understand written texts read aloud must be an integral part of any initiative designed to build literacy.

At the first grade level, a child's ability to understand what he hears far outpaces his ability to independently read and understand written text. By listening to stories or nonfiction selections read aloud, children can experience the complexities of written language without expending cognitive energy on decoding; they can likewise access deeper and more complex content knowledge than they are presently able to read independently.

Careful consideration should be given to the selection of books read aloud to ensure that the vocabulary and syntax presented is rich and complex. Leveled texts will not provide the rich language experience desired during read-alouds and should only be used as a starting point with students for whom English is a second language.

Grade appropriate read-aloud selections for poetry and fiction are included on pages 32–34. Nonfiction read-alouds should be selected on the basis of the history, science, music and visual art topics identified for Grade 1 students in the *Core Knowledge Sequence*, with emphasis on history and science read-alouds. It is strongly recommended that daily read-alouds focus on a single topic over a sustained period of time—about two weeks—rather than intermingling read-alouds on a variety of subjects. Careful consideration should be given to the order in which nonfiction read-alouds are presented to ensure that knowledge about a topic builds in a progressive and coherent way.

Following any read-aloud, children should participate in rich, structured conversations with an adult in response to the written text that has been read aloud. In this way, they can begin to orally practice comparing, analyzing, and synthesizing ideas in written text in much the same way as they will be expected to do as independent readers in the later grades.

- Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text, and poems.
- Distinguish the following genres of literature: fiction, nonfiction and drama.

Grasping Specific Details and Key Ideas

- Describe illustrations.
- Sequence four to six pictures illustrating events in a read-aloud.
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc.
- Retell key details.
- Ask questions to clarify information in a read-aloud.
- Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in a read-aloud.

Observing Craft and Structure

- Understand and use words and phrases heard in read-alouds.
- Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.
- Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.

Integrating Information and Evaluating Evidence

- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.

- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions.
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering “why” questions that require recognizing cause/effect relationships.
- Interpret information that is presented orally and then ask additional questions to clarify information or the topic in the read-aloud.
- Identify who is telling a story or providing information in a text.

D. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—FICTION, DRAMA, AND POETRY

- Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Compare and contrast characters from different stories.
- Change some story events and provide a different story ending.
- Create and tell an original story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Distinguish fantasy from realistic text in a story.
- Identify the moral or lesson of a fable, folktale, or myth.
- Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.
- Identify sensory language and how it is used to describe people, objects, places and events.

E. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—NONFICTION AND INFORMATIONAL TEXT

Teachers: Select nonfiction read-aloud topics from the first grade history, science, music, and visual arts topics listed on pages 35–47, with emphasis on history and science.

- Generate questions and seek information from multiple sources to answer questions.
- Answer questions about the details of a nonfiction text, indicating which part of the text provided the information needed to answer specific questions.
- With assistance, categorize and organize facts and information within a given topic.
- With assistance, create and interpret timelines and lifelines related to read-alouds.
- Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.

II Reading

A. PRINT AWARENESS

- Demonstrate understanding that what is said can be written and that the writing system is a way of writing down sounds.
- Demonstrate understanding of directionality (left to right, return sweep, top to bottom, front to back).
- Identify the parts of books and function of each part (front cover, back cover, title page, table of contents).
- Demonstrate correct book orientation by holding book correctly and turning pages.
- Recognize that sentences in print are made up of separate words.
- Understand that words are separated by spaces.
- Distinguish letters, words, sentences, and stories.
- Demonstrate understanding of basic print conventions by tracking and following print word for word when listening to text read aloud.

- Demonstrate understanding that the sequence of letters in a written word represents the sequence of sounds in the spoken word.
- Recognize and name the 26 letters of the alphabet in both their upper-case and lower-case forms.
- Say the letters of the alphabet in order, either in song or recitation.

B. PHONEMIC AWARENESS

- Demonstrate understanding that words are made up of sequences of sounds.
- Demonstrate understanding that vowel sounds are produced with the mouth open and airflow unobstructed, whereas consonant sounds involve closing parts of the mouth and blocking the air flow.
- Given a pair of spoken words, select the one that is longer (i.e., contains more phonemes).
- In riddle games, supply words that begin with a target phoneme.
- Indicate whether a target phoneme is or is not present in the initial/medial/final position of a spoken word, e.g., hear /m/ at the beginning of *mat* and /g/ at the end of *bag*.
- Listen to one-syllable words and tell the beginning or ending sounds, e.g., given *dog*, identify initial /d/ or final /g/.
- Recognize the same phoneme in different spoken words, e.g., /b/ in *ball*, *bug*, and *big*.
- Identify whether pairs of phonemes are the same or different, including pairs that differ only in voicing, e.g., /b/ and /p/.
- Orally blend two to three sounds to form a word, e.g., given the sounds /k/... /a/.../t/, blend to make *cat*.
- Segment a spoken word into phonemes, e.g., given *bat*, produce the segments/b//a//t/.
- Given a spoken word, produce another word that rhymes, e.g., given *hit*, supply *bit* or *mitt*.
- Identify the number of syllables in a spoken word.

C. PHONICS: DECODING AND ENCODING

Teachers: Learning to read requires understanding and mastering the written English code through explicit and systematic phonics instruction. Research suggests that phonics instruction is most effective when specific letter-sound relationships are taught and reinforced by having children both read and write the letter-sound correspondence being studied. Reading and writing—decoding and encoding—are complementary processes that ensure mastery of the written code.

- Demonstrate understanding that a systematic, predictable relationship exists between written letters (graphemes) and spoken sounds (phonemes).
- Blend individual phonemes to pronounce printed words.
- Understand that sometimes two or more printed letters stand for a single sound.
- Read one to two syllable words containing any of the grapheme-phoneme - correspondences listed below. -
- Read and write words with inflectional endings, i.e., -s, -ed, -ing, -er, -est.
- Read, understand, and write contractions, i.e., *isn't*, *I'm*, *can't*, etc.
- Sort and classify words according to the spelling used to represent a specific phoneme.
- Read tricky spellings that can be sounded two ways, e.g., the letter 's' sounded /s/ as in *cats* and /z/ as in *dogs*.
- Read and spell chains of one-syllable words in which one sound is added, substituted, or omitted, i.e., read at > cat > bat > bad > bid.
- Read at least 30 words generally identified as high frequency words.

CONSONANT SOUNDS AND SPELLINGS TAUGHT IN FIRST GRADE

/b/ spelled 'b' as in *boy*, 'bb' as in *tubby*

/d/ spelled 'd' as in *dog*, 'dd' as in *madder*, 'ed' as in *filled*

/f/ spelled 'f' as in *fun*, 'ff' as in *stuff*

/g/ spelled 'g' as in *get*, 'gg' as in *egg*

/h/ spelled 'h' as in *him*
 /j/ spelled 'j' as in *jump*, 'g' as in *gem*, 'ge' as in *fringe*
 /k/ spelled 'c' as in *cat*, 'k' as in *kitten*, 'ck' as in *sick*, 'cc' as in *moccasin*
 /l/ spelled 'l' as in *lip*, 'll' as in *sell*
 /m/ spelled 'm' as in *mad*, 'mm' as in *hammer*
 /n/ spelled 'n' as in *net*, 'nn' as in *funny*, 'kn' as in *knock*
 /p/ spelled 'p' as in *pet*, 'pp' as in *happy*
 /r/ spelled 'r' as in *red*, 'rr' as in *earring*, 'wr' as in *wrist*
 /s/ spelled 's' as in *sit*, 'ss' as in *dress*, 'c' as in *cent*, 'ce' as in *prince*, 'se' as in *rinse*
 /t/ spelled 't' as in *top*, 'tt' as in *butter*, 'ed' as in *asked*
 /v/ spelled 'v' as in *vet*, 've' as in *twelve*
 /w/ spelled 'w' as in *wet*, 'wh' as in *when*
 /x/ spelled 'x' as in *tax*
 /y/ spelled 'y' as in *yes*
 /z/ spelled 'z' as in *zip*, 'zz' as in *buzz*, 's' as in *dogs*
 /ch/ spelled 'ch' as in *chop*, 'tch' as in *itch*
 /sh/ spelled 'sh' as in *ship*
 /th/ spelled 'th' as in *thin*
 /th/ spelled 'th' as in *then*
 /qu/ spelled 'qu' as in *quick*
 /ng/ spelled 'ng' as in *sing*, 'n' as in *pink*

VOWEL SOUNDS AND SPELLINGS TAUGHT IN FIRST GRADE

/a/ spelled 'a' as in *cat*
 /e/ spelled 'e' as in *get*
 /i/ spelled 'i' as in *hit*
 /o/ spelled 'o' as in *hot*
 /u/ spelled 'u' as in *but*
 /ae/ spelled 'a_e' as in *cake*, 'ai' as in *wait*, 'ay' as in *day*, 'a' as in *paper*
 /ee/ spelled 'ee' as in *bee*, 'e' as in *me*, 'y' as in *funny*, 'ea' as in *beach*, 'e_e' as in *Pete*,
 'ie' as in *cookie*
 /ie/ spelled 'i_e' as in *bike*, 'i' as in *biting*, 'y' as in *try*, 'ie' as in *tie*, 'igh' as in *night*
 /oe/ spelled 'o_e' as in *note*, 'oa' as in *boat*, 'oe' as in *toe*, 'o' as in *open*, 'ow' as in *snow*
 /ue/ spelled 'u_e' as in *cute*
 /aw/ spelled 'aw' as in *paw*
 /oo/ spelled 'oo' as in *look*,
 /oo/ spelled 'oo' as in *soon*
 /ou/ spelled 'ou' as in *shout*
 /oi/ spelled 'oi' as in *oil*
 /er/ spelled 'er' as in *her*
 /ar/ spelled 'ar' as in *car*
 /or/ spelled 'or' as in *for*

D. ORAL READING AND FLUENCY

- Read decodable stories that incorporate the specific code knowledge that has been taught.
- Demonstrate increased accuracy, fluency, and expression on successive reading of a decodable text (50 wpm by the end of the year).
- Use phonics skills in conjunction with context to confirm or self-correct word recognition and understanding, rereading as necessary.
- Demonstrate understanding of and use commas and end punctuation while reading orally.
- Read aloud, alone, or with a partner at least 15 minutes each day.

E. READING COMPREHENSION—ALL TEXTS

Teachers: During the beginning of first grade, most students will still need to devote considerable energy when reading to deciphering the written text. Over the course of this year, they

will learn even more elements of the code, meaning that the decodable texts that they can read independently will increasingly resemble “real stories” and trade books. With practice and repeated readings of the same text, students will develop increasing automaticity, allowing them to focus more intently on the meaning of what they are reading. Both of these factors, i.e., the student’s increasing fluency and the use of more authentic text—which is now decodable because of the student’s increasing code knowledge—mean that attention to reading comprehension can move to a higher level than just the rudimentary understanding of text expected at the kindergarten level. This expectation is reflected in the increased number of objectives below that have been added to the kindergarten level objectives. However, it is important to remember that listening comprehension still far exceeds reading comprehension and that children’s ability to talk about what they have heard and/or read will exceed their ability to demonstrate that understanding in writing.

- Demonstrate understanding of completely decodable text after reading independently.

Grasping Specific Details and Key Ideas

- Sequence four to six pictures illustrating events from a text that has been read independently.
- Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, etc.) about a text that has been read independently.
- Retell key details from a text that has been read independently.
- Ask questions to clarify information about a text that has been read independently.
- Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.

Observing Craft and Structure

- Identify basic text features and what they mean, including title, table of contents, and chapters.
- Understand and use words and phrases from a text that has been read independently.
- Compare and contrast similarities and differences within a single text or between multiple texts read independently.
- Make personal connections to events or experiences in a text that has been read independently and/or make connections among several texts that have been read independently.

Integrating Information and Evaluating Evidence

- Prior to reading, identify what they know and have learned that may be related to the specific story or topic to be read.
- Use pictures accompanying the written text to check and support understanding.
- Make predictions prior to and while reading, based on the title, pictures, and/or text read thus far and then compare the actual outcomes to predictions.
- Answer questions that require making interpretations, judgments, or giving opinions about what is read independently, including answering “why” questions that require recognizing cause/effect relationships.
- Identify who is telling a story or providing information in a text.
- Identify temporal words that link and sequence events, i.e., *first, next, then*, etc.
- Identify words that link ideas, i.e., *for example, also, in addition*.

F. READING COMPREHENSION—FICTION, DRAMA, AND POETRY

- Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Compare and contrast characters from different stories.
- Change some story events and provide a different story ending.
- Distinguish fantasy from realistic text in a story.
- Identify the moral or lesson of a fable, folktale, or myth.

- Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.
- Identify sensory language and how it is used to describe people, objects, places and events.

G. READING COMPREHENSION—NONFICTION AND INFORMATIONAL TEXT

Teachers: Select nonfiction topics from the first grade history, science, music and visual arts topics listed on pages 35–47, with emphasis on history and science.

- With assistance, create and interpret timelines and lifelines related to text read independently.
- Distinguish text that describes events that happened long ago from text that describes contemporary or current events.

III. Writing

Teachers: It is important to recognize that of all the communication skills—listening, speaking, reading, and writing—writing is the most demanding and challenging. During the beginning of first grade, children still need to devote much of their focus and cognitive energy to the code itself, as well as the fine motor act of writing. During this period, teachers should continue to support written expression through shared writing experiences that are modeled and scaffolded by an adult.

At some point during the first grade year, however, most children will feel comfortable enough with the basic skills to begin making a transition to writing more independently. Young children's desire to express themselves in writing should be heartily encouraged. To this end, it is important that teachers have age appropriate expectations about what first grade student writing should resemble. Students have not been taught all of the spellings they will need to achieve dictionary-correct spelling. It is therefore premature to expect that words in their independent writing will be spelled correctly. It is reasonable to expect students to use the letter-sound correspondences they have learned to set down plausible spellings for the sounds in the word. For example, a student who writes *bote* for *boat*, *dun* for *done*, or *hed* for *head* has set down a plausible spelling for each sound in the word, using the code knowledge taught in this grade. This should be seen as good spelling for this stage of literacy acquisition. Dictionary-correct spelling will be a realistic goal when students have learned more spellings and learned how to use a dictionary to check spelling.

Furthermore, while teachers can begin to model and scaffold the use of a writing process, such as "Plan-Draft-Edit," it is equally important not to dampen student enthusiasm by rigidly insisting that *all* student writing be edited over and over again to bring the text to the "publication" stage. A sensible balance that encourages children to use their current skill knowledge when writing—without stifling creative expression—is optimal at the first grade level.

Writing to Reflect Audience, Purpose and Task

- Add details to writing.
- Begin to use tools, including technology, to plan, draft, and edit writing.

Conducting Research

- Gather information from experiences or provided text sources.

A. NARRATIVE WRITING

- Write or retell a story that includes characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.
- Write a descriptive paragraph using sensory language.
- Create a title and an ending that are relevant to the narrative.

B. INFORMATIVE/EXPLANATORY WRITING

- Write about a topic, including a beginning and ending sentence, facts and examples relevant to the topic, and specific steps (if writing explanatory text).

C. PERSUASIVE WRITING (OPINION)

- Express an opinion or point of view in writing, providing reasons and supporting details for preference or opinion using the linking word *because*.
- Create a title that is relevant to the topic or subject of the text.
- If writing about a specific book or read-aloud, refer to the content of the text.

IV. Language Conventions

- Form letters, words, phrases and sentences to communicate thoughts and ideas.
- Apply basic spelling conventions.
- Use basic capitalization and punctuation in sentences to convey meaning.

A. HANDWRITING AND SPELLING

- Print from memory the 26 letters of the alphabet accurately in both their upper-case and lower-case forms.
- Write on primary lined paper from left to right, staying within the lines and leaving spaces between words, and from top to bottom, using return sweep.
- Write phonemically plausible spellings for words that cannot be spelled correctly with current code knowledge, e.g., write *ate* for *eight*, *boi* for *boy*, *fone* for *phone*.
- Write words, phrases, and sentences from dictation, applying phonics knowledge.
- Identify and use synonyms and antonyms.

B. PARTS OF SPEECH AND SENTENCE STRUCTURE

- Recognize, identify and use subject, object, and possessive pronouns, i.e., *I*, *me*, *my*, *they*, *them*, orally, in written text and in own writing.
- Recognize, identify and use common and proper nouns, orally, in written text, and in own writing.
- Recognize, identify and use regular verbs to convey a sense of past, present, and future tense orally, in written text, and in own writing.
- Recognize, identify, and use adjectives orally, in written text, and in own writing.
- Recognize, identify and use subjects and predicates, orally, in written text, and in own writing.
- Recognize, identify, and use statements, questions, and exclamations orally, in written text, and in own writing.
- Produce and expand complete sentences orally and in shared writing exercises.

C. CAPITALIZATION, AND PUNCTUATION

- Capitalize the first word in a sentence, the pronoun *I*, and proper nouns (names and places,) months, days of the week.
- Identify and use end punctuation, including periods, question marks, and exclamation points.
- Use commas appropriately in greetings and closings of letters, dates, and items in a series.
- Write a simple friendly letter.
- Use apostrophes to create contractions and indicate possession, i.e., cat's meow.
- Use quotation marks appropriately to designate direct speech.

Note: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose children to more poetry, old and new, and to have children write their own poems. To bring children into the spirit of poetry, read it aloud and encourage them to speak it aloud so they can experience the music in the words. Although children are not expected to memorize the following rhymes, they will delight in knowing their favorites by heart, and will experience a sense of achievement and satisfaction in being able to recite some of the rhymes.

V. Poetry

Hope (Langston Hughes) -
 I Know All the Sounds the Animals Make (Jack Prelutsky) -
 My Shadow (Robert Louis Stevenson) -
 The Owl and the Pussycat (Edward Lear) -
 The Pasture (Robert Frost) -
 The Purple Cow (Gelett Burgess) -
 Rope Rhyme (Eloise Greenfield) -
 Sing a Song of People (Lois Lenski) -
 Solomon Grundy (traditional) -
 The Swing (Robert Louis Stevenson) -
 Table Manners [also known as “The Goops”] (Gelett Burgess) -
 Thanksgiving Day [“Over the river and through the wood”] (Lydia Maria Child) -
 Washington (Nancy Byrd Turner) -
 Wynken, Blynken, and Nod (Eugene Field) -

VI. Fiction

Teachers: While the following works make up a strong core of literature, the “content” of language arts includes not only stories, fables, and poems, but also the well-practiced, operational knowledge of how written symbols represent sounds, and how those sounds and symbols convey meaning. Thus, the stories specified below are meant to complement, not to replace, materials designed to help children practice decoding and encoding skills (see above, II. Reading and III. Writing).

The titles here constitute a core of stories for this grade. They are available in a variety of editions, some designed for novice readers, and others best for reading aloud to children. In first grade, most of the following titles should be read-aloud selections. It is recommended that you provide a mixture of texts, including some beginning readers, with their necessarily limited vocabulary and syntax, for these can give children the important sense of accomplishment that comes from being able to “read it all by myself.”

Expose children to many more stories, including classic picture books and read-aloud books. (In schools, teachers across grade levels should communicate their choices in order to avoid undue repetition.) Children should also be exposed to nonfiction prose—biographies, books on science and history, books on art and music—and they should be given opportunities to tell and write their own stories.

A. STORIES

The Boy at the Dike (folktale from Holland)
 The Frog Prince -
 Hansel and Gretel -
 selections from *The House at Pooh Corner* (A. A. Milne) -
 How Anansi Got Stories from the Sky God (folktale from West Africa) -
 It Could Always Be Worse (Yiddish folktale) -
 Jack and the Beanstalk -
 The Knee-High Man (African-American folktale) -
 Medio Pollito (Hispanic folktale)
 The Pied Piper of Hamelin -
 Pinocchio -
 The Princess and the Pea -
 Puss-in-Boots -
 Rapunzel -
 Rumpelstiltskin -
 Sleeping Beauty -
The Tale of Peter Rabbit (Beatrix Potter) -

Tales of Br'er Rabbit (recommended tales: Br'er Rabbit Gets Br'er Fox's Dinner;
Br'er Rabbit Tricks Br'er Bear; Br'er Rabbit and the Tar Baby)
Why the Owl Has Big Eyes (Native American legend)

B. AESOP'S FABLES

The Boy Who Cried Wolf -
The Dog in the Manger -
The Wolf in Sheep's Clothing -
The Maid and the Milk Pail -
The Fox and the Grapes -
The Goose and the Golden Eggs -

C. DIFFERENT LANDS, SIMILAR STORIES

Teachers: To give students a sense that people all around the world tell certain stories that, while they differ in details, have much in common, introduce students to similar folktales from different lands, such as the following:

Lon Po Po (China) and Little Red Riding Hood
Issun Boshi, or One-Inch Boy (Japan); Tom Thumb (England); Thumbelina (by the Danish writer Hans Christian Andersen); Little Finger of the Watermelon Patch (Vietnam)
Some of the many variations on the Cinderella story (from Europe, Africa, China, Vietnam, Egypt, Korea, etc.)

Note: Children should learn terms relating to drama as part of their participation in a play appropriate for first graders—possibly a dramatized version of one of the stories listed above.

D. LITERARY TERMS

Characters, heroes, and heroines
Drama -
actors and actresses -
costumes, scenery and props -
theater, stage, audience -

VII. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

A.M. and P.M.
An apple a day keeps the doctor away. -
Do unto others as you would have them do unto you. [also in Kindergarten] -
Fish out of water -
Hit the nail on the head. -
If at first you don't succeed, try, try again. -
Land of Nod -
Let the cat out of the bag. -
The more the merrier. -
Never leave till tomorrow what you can do today. -
Practice makes perfect. [also in Kindergarten] -
Sour grapes -
There's no place like home. -
Wolf in sheep's clothing -

History and Geography: Grade 1

Teachers: In first grade, children often study aspects of the world around them: the family, the school, the community, etc. The following guidelines are meant to broaden and complement that focus. The goal of studying selected topics in World History in first grade is to foster curiosity and the beginnings of understanding about the larger world outside the child's locality, and about varied civilizations and ways of life. This can be done through a variety of means: story, drama, art, music, discussion, and more.

The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge embraces a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures.

WORLD HISTORY AND GEOGRAPHY

I. Geography

A. SPATIAL SENSE (Working with Maps, Globes, and Other Geographic Tools)

Teachers: Foster children's geographical awareness through regular work with maps and globes. Have students regularly locate themselves on maps and globes in relation to places they are studying.

- Name your continent, country, state, and community.
- Understand that maps have keys or legends with symbols and their uses.
- Find directions on a map: east, west, north, south.
- Identify major oceans: Pacific, Atlantic, Indian, Arctic.
- Review the seven continents: Asia, Europe, Africa, North America, South America, Antarctica, Australia.
- Locate: Canada, United States, Mexico, Central America.
- Locate: the Equator, Northern Hemisphere, Southern Hemisphere, North and South Poles.

B. GEOGRAPHICAL TERMS AND FEATURES

- peninsula, harbor, bay, island

II. Early World Civilizations

Teachers: As you introduce children to early civilizations, keep in mind the question, What is civilization? Help children see recurring features such as settling down, agriculture, building towns and cities, and learning how to write.

A. MESOPOTAMIA: THE "CRADLE OF CIVILIZATION"

- Importance of Tigris and Euphrates Rivers
- Development of writing, why writing is important to the development of civilization
- Code of Hammurabi (early code of laws), why rules and laws are important to the development of civilization

B. ANCIENT EGYPT

- Geography -
 - Africa -
 - Sahara Desert -
- Importance of Nile River, floods and farming
- Pharaohs -
 - Tutankhamen -
 - Hatshepsut, woman pharaoh -
- Pyramids and mummies, animal gods, Sphinx
- Writing: hieroglyphics

See also Visual Arts 1:
Art from Long Ago: Art of
Ancient Egypt.

Note: Students will be introduced to Hinduism and Buddhism in grade 2, and examine Islam in more detail in grade 4. They also examine lasting ideas from Judaism and Christianity in grade 6.

Note: In older sources you may find these formerly used spellings: Mohammed, Mecca, Koran.

C. HISTORY OF WORLD RELIGIONS

Teachers: Since religion is a shaping force in the story of civilization, the *Core Knowledge Sequence* introduces children in the early grades to major world religions, beginning with a focus on geography and major symbols and figures. The purpose is not to explore matters of theology but to provide a basic vocabulary for understanding many events and ideas in history. The goal is to familiarize, not proselytize; to be descriptive, not prescriptive. The tone should be one of respect and balance: no religion should be disparaged by implying that it is a thing of the past. To the question, “Which one is true?” an appropriate response is: “People of different faiths believe different things to be true. The best people to guide you on this right now are your parents or someone at home.”

- Judaism -
 - Belief in one God -
 - Story of the Exodus: Moses leads the Hebrews out of Egypt -
 - Israel, Chanukah, Star of David, Torah, synagogue -
- Christianity -
 - Christianity grew out of Judaism -
 - Jesus, meaning of “messiah” -
 - Christmas and Easter, symbol of the cross -
- Islam
 - Originated in Arabia, since spread worldwide
 - Followers are called Muslims
 - Allah, Muhammad, Makkah, Qur’an, mosque
 - Symbol of crescent and star (found on the flags of many mainly Islamic nations)

III. Modern Civilization and Culture: Mexico

A. GEOGRAPHY

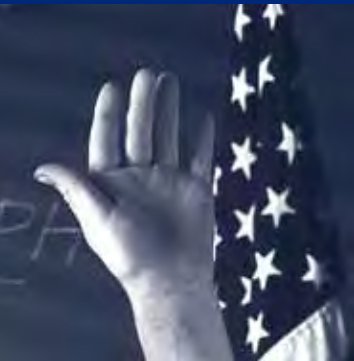
- North American continent, locate Mexico relative to Canada and the United States
- Central America, Yucatan Peninsula
- Pacific Ocean, Gulf of Mexico, Rio Grande
- Mexico City

B. CULTURE

- Indian and Spanish heritage
- Traditions: fiesta, piñata
- National holiday: September 16, Independence Day

Note: For historical connections, see American History 1: Maya and Aztec civilizations; Conquistadors, Cortes, Moctezuma. See also Music 1: “La Cucaracha”; Language Arts 1: “Medio Pollito,” and Visual Arts 1: Diego Rivera, *Piñata* and, *The History of Medicine in Mexico* (mural).

American History & Geography



AMERICAN HISTORY AND GEOGRAPHY

Teachers: The study of American history begins in grades K–2 with a brief overview of major events and figures, from the earliest days to recent times. A more in-depth, chronological study of American history begins again in grade 3 and continues onward. The term “American” here generally, but not always, refers to the lands that became the United States. Other topics regarding North, Central, and South America may be found in the World History and Geography sections of this Sequence.

I. Early People and Civilizations

A. THE EARLIEST PEOPLE: HUNTERS AND NOMADS

- Crossing from Asia to North America (the land bridge as one possibility)
From hunting to farming
Gradual development of early towns and cities

B. EARLY AMERICAN CIVILIZATIONS

Teachers: Children will study the Maya, Inca, and Aztec civilizations in detail in grade 5. First grade teachers should examine the fifth grade guidelines to see how these topics build in the later grade.

Here, introduce children to these civilizations. Though it is historically accurate to note the warlike nature of the Maya and Aztecs, it is recommended that mention of the practice of human sacrifice be left to the fifth grade.

- Maya in Mexico and Central America
- Aztecs in Mexico -
Moctezuma (also called Montezuma) -
Tenochtitlan (Mexico City) -
- Inca in South America (Peru, Chile) -
Cities in the Andes, Machu Picchu -

Note: Early exploration and the colonial years will be studied in greater depth and detail in grade 3. First grade teachers should examine the third grade guidelines to see how these topics build in the later grade.

II. Early Exploration and Settlement

A. COLUMBUS

Teachers: Review from kindergarten the story of Columbus’s voyage in 1492.

B. THE CONQUISTADORS

- The search for gold and silver
- Hernán Cortés and the Aztecs
- Francisco Pizarro and the Inca
- Diseases devastate Native American population

C. ENGLISH SETTLERS

- The story of the Lost Colony -
Sir Walter Raleigh -
Virginia Dare -
- Virginia -
Jamestown -
Captain John Smith -
Pocahontas and Powhatan -
- Slavery, plantations in Southern colonies
- Massachusetts -
Pilgrims, Mayflower, Thanksgiving Day
Massachusetts Bay Colony, the Puritans -

Note: The now-familiar name “Powhatan” was used by English settlers for the leader whose name was Wahunsonacock.

See below, Symbols and
Figures: Liberty Bell.

See also Music 1: "Yankee
Doodle."

III. From Colonies to Independence: The American Revolution

Teachers: The American Revolution will be studied in greater depth and detail in grade 4. First grade teachers should examine the fourth grade guidelines to see how these topics build in the later grade. It is recommended that first grade teachers focus on the topics specified here, and leave for fourth grade the more detailed study of the Revolution. In first grade, emphasize the *story* of the birth of our nation.

- Locate the original thirteen colonies.
- The Boston Tea Party
- Paul Revere's ride, "One if by land, two if by sea"
- Minutemen and Redcoats, the "shot heard round the world"
- Thomas Jefferson and the Declaration of Independence, "We hold these truths to be self-evident, that all men are created equal. . . ."
- Fourth of July
- Benjamin Franklin: patriot, inventor, writer
- George Washington: from military commander to our first president
 - Martha Washington
 - Our national capital city named Washington
- Legend of Betsy Ross and the flag

IV. Early Exploration of the American West

Teachers: America's westward growth will be studied in grade 2 and in greater depth and detail in grade 5. First grade teachers should examine the second and fifth grade guidelines to see how these topics build in later grades.

- Daniel Boone and the Wilderness Road
- The Louisiana Purchase -
 - Explorations of Lewis and Clark -
 - Sacagawea -
- Geography: Locate the Appalachian Mountains, the Rocky Mountains, and the Mississippi River.

V. Symbols and Figures

- Recognize and become familiar with the significance of -
 - Liberty Bell -
 - Current United States president -
 - American flag -
 - Bald eagle -

Visual Arts: Grade 1

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

I. Art from Long Ago

Teachers: Help children see how art has been an important human activity since early times.

- Look at and discuss -
 - Cave paintings -
 - Art of Ancient Egypt -
 - Great Sphinx -
 - Mummy cases: Tutankhamen’s coffin -
 - Bust of Queen Nefertiti -

See also World History 1:
Ancient Egypt.

II. Elements of Art

Teachers: The generally recognized elements of art include line, shape, form, space, light, texture, and color. In first grade, focus on the following:

A. COLOR

Teachers: Review from Kindergarten the idea of “warm” and “cool” colors.

- Know that red, yellow, and blue are commonly referred to as the “primary colors,” and that
 - blue + yellow = green
 - blue + red = purple
 - red + yellow = orange
- Observe the use of color in
 - Claude Monet, *Tulips in Holland*
 - James A. McNeill Whistler, *Arrangement in Black and Gray* (also known as *Whistler’s Mother*) -
 - Diego Rivera, *Piñata*

See also World History 1:
Mexico, re *piñata*.

B. LINE

- Identify and use different lines: straight, zigzag, curved, wavy, spiral, thick, thin
- Observe how different lines are used in -
 - Jacob Lawrence, *Parade*
 - Henri Matisse, *The Swan*
 - Georgia O’ Keeffe, one of her *Shell* paintings -

C. SHAPE

- Recognize basic geometric shapes—square, rectangle, triangle, circle, oval—in nature, man-made objects, and artworks, including
 - Jacob Lawrence, *Parade*
 - Grant Wood, *Stone City, Iowa*

D. TEXTURE

Teachers: Provide opportunities for children to experience both tactile and visual texture (these terms are for your reference only) by having them describe qualities of texture in natural objects (tactile texture) and in works of art (visual texture).

- Describe qualities of texture (as, for example, rough, smooth, bumpy, scratchy, slippery, etc.) in
Native American baskets (such as a pomo basket)
Edgar Degas, *Little Fourteen-Year-Old Dancer* (also known as *Dressed Ballet Dancer*) -
Albrecht Dürer, *Young Hare*

III. Kinds of Pictures: Portrait and Still Life

Teachers: Introduce children to the terms we use to describe different kinds of paintings, discuss examples, and provide opportunities for children to create their own works in different genres. When you look at the specified works, ask the children about their first impressions—what they notice first, and what the picture makes them think of or feel. Go on to discuss lines, shapes, colors, and textures; details not obvious at first; why they think the artist chose to depict things in a certain way, etc.

- Recognize as a portrait or self-portrait: -
Leonardo da Vinci, *Mona Lisa*
Francisco Goya, *Don Manuel Osorio Manrique de Zuñiga*
Vincent van Gogh, *Self-Portrait* [1889] -
- Recognize as a still life: -
Vincent van Gogh, *Irises*
Paul Cézanne, studies with fruit, such as *Apples and Oranges*
- Recognize as a mural (a painting on a wall): -
Diego Rivera, *The History of Medicine in Mexico*

See also World History 1:
Mexico, re murals of Diego
Rivera.

Music: Grade 1

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.

The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).

I. Elements of Music

- Through participation become familiar with basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
 - Recognize a steady beat; moving to a beat; play a steady beat; recognize accents.
 - Move responsively to music (marching, walking, hopping, swaying, etc.).
 - Recognize short and long sounds.
 - Discriminate between fast and slow.
 - Discriminate between obvious differences in pitch: high and low.
 - Discriminate between loud and soft.
 - Understand that melody can move up and down.
 - Hum the melody while listening to music.
 - Echo short rhythms and melodic patterns.
 - Play simple rhythms and melodies.
 - Recognize like and unlike phrases.
 - Recognize that music has timbre or tone color.
 - Sing unaccompanied, accompanied, and in unison.
- Understand that music is written down in a special way and become familiar with the following notation:
 - whole note ♩ half note ♪ quarter note

II. Listening and Understanding

Teachers: Expose children to a wide range of music, including children's music, popular instrumental music, and music from various cultures.

A. MUSICAL TERMS AND CONCEPTS

- Composers
 - Know that a composer is someone who writes music.
 - Become familiar with Wolfgang Amadeus Mozart as a composer who wrote what is known as classical music, and listen to the Allegro (first movement) from *A Little Night Music (Eine kleine Nachtmusik)*.
- Orchestra
 - Become familiar with the families of instruments in the orchestra: strings, brass, woodwinds, percussion.
 - Know that the leader of the orchestra is called the conductor.
 - Listen to Sergei Prokofiev, *Peter and the Wolf*.

Note: Children will review families of instruments and specific instruments in later grades.

Note: If resources are available, read aloud to students the story behind Tchaikovsky's *Nutcracker*, and either attend a performance or show scenes from the ballet, which is available on videotape. You may also wish to introduce children to the Suite from Tchaikovsky's *Sleeping Beauty*, in relation to the story in Language Arts 1, "Sleeping Beauty."

B. MUSIC CAN TELL A STORY

- Opera
Understand that opera combines music, singing, and acting.
Listen to selections from Humperdinck's *Hansel and Gretel*: "Brother, Come Dance with Me," "I Am the Little Sandman," "Children's Prayer."
- Instrumental Music
Listen to Paul Dukas, *The Sorcerer's Apprentice*.
- Ballet
Understand that ballet combines music and movement, often to tell a story.
Listen to Tchaikovsky's *Nutcracker Suite*.

Teachers: Familiarize children with other types of dance, such as square dancing and tap dancing.

C. AMERICAN MUSICAL TRADITIONS

- Jazz
Understand that jazz is a kind of music that developed in America, with African and African American roots, and that jazz musicians improvise.
Recognize Louis Armstrong as a great early jazz musician.

III. Songs

Teachers: You may also wish to teach children the song "Brother, Come Dance with Me" in connection with their introduction to the opera *Hansel and Gretel*. And you may wish to teach the poem "Thanksgiving Day" ("Over the river and through the wood") as a song (see Language Arts 1: Poetry).

America the Beautiful
 Billy Boy
 Dry Bones
 For He's a Jolly Good Fellow
 Frère Jacques
 La Cucaracha
 Make New Friends
 Michael, Row the Boat Ashore
 Oh, Dear, What Can the Matter Be?
 Oh, John the Rabbit
 Oh! Susanna
 On Top of Old Smokey
 She'll Be Comin' 'Round the Mountain
 Skip to My Lou
 Take Me Out to the Ball Game
 There's a Hole in the Bucket
 When the Saints Go Marching In
 Yankee Doodle

Mathematics: Grade 1

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving “higher order” skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.

I. Patterns and Classification

- Establish concepts of likeness and difference by sorting and classifying objects according to various attributes: size, shape, color, amount, function, etc.
- Define a set by the common property of its elements.
- In a collection of objects that includes a given set and an item that does not belong, indicate which item does not belong.
- Recognize patterns and predict the extension of a pattern.

II. Numbers and Number Sense

Teachers: Review and build on topics from kindergarten.

- Write numbers 0 - 100.
- Count from 0 - 100 by ones; twos; fives; tens.
- Count by tens from a given single-digit number.
- Count forward and backwards.
- Use tallies.
- Identify ordinal position, 1st to 10th.
- Identify dozen; half-dozen; pair.
- Recognize place value: ones, tens, hundreds.
- Identify more and less; counting how many more or less.
- Given a number, identify one more and one less; ten more and ten less.
- Compare quantities using the signs $<$, $>$, and $=$.
- Recognize fractions as part of a whole: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$
- Create and interpret simple pictorial graphs and bar graphs.

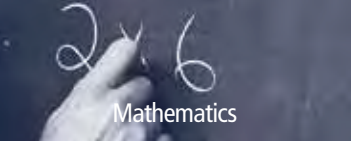
III. Money

- Identify and recognize relative value of penny, nickel, dime, quarter.
- Recognize and use dollar (\$) and cents (¢) signs.
- Show how different combinations of coins equal the same amounts of money.

IV. Computation

A. ADDITION (using concrete objects, and paper and pencil)

- Know the meaning of the plus (+) sign.
- Know what a “sum” is.
- Know addition facts to $10 + 10$ (untimed mastery).
- Add in any order.
- Know what happens when you add zero.
- Know how to write addition problems horizontally and vertically.
- Know that when you add 3 numbers, you get the same sum regardless of grouping of addends.
- Solve two-digit addition problems with and without regrouping.



B. SUBTRACTION (using concrete objects, and paper and pencil)

- Understand subtraction as “taking away.”
- Know the meaning of the minus sign (-).
- Know what a “difference” is.
- Know subtraction facts corresponding to addition facts (untimed mastery).
- Know how to write subtraction problems horizontally and vertically.
- Solve two-digit subtraction problems with and without regrouping.
- Mentally subtract 10 from a two-digit number.

C. SOLVING PROBLEMS AND EQUATIONS

- Write an addition or subtraction equation to solve basic one-step story and picture problems.
- Solve simple equations in the form of $__ - 2 = 7$; $5 + __ = 7$.

V. Measurement

- Identify familiar instruments of measurement, such as ruler, scale, thermometer.
- Compare objects according to:
 - Linear measure
 - Measure length using non-standard units.
 - Measure length in inches and feet, and in centimeters.
 - Measure and draw line segments in inches and centimeters.
 - Weight -
 - Compare weights of objects using a balance scale. -
 - Measure weight in non-standard units and in pounds. -
 - Capacity (volume) -
 - Estimate and measure capacity in cups. -
 - Identify quart, gallon. -
 - Temperature: associate temperature in degrees Fahrenheit with weather.
- Time
 - Sequence events: before and after; first, next, last.
 - Compare duration of events: which takes more or less time.
 - Read a clock face and tell time to the half-hour.
 - Know the days of the week and the months of the year, both in order and out of sequence.
 - Orientation in time: today, yesterday, tomorrow; morning, afternoon, evening, night; this morning vs. yesterday morning, etc.

VI. Geometry

- Identify left and right hand.
- Identify top, bottom, middle.
- Know and use terms of orientation and relative position, such as: -
 - closed, open around -
 - on, under, over far from, near -
 - in front, in back (behind) above, below -
 - between, in the middle of to the right of, to the left of -
 - next to, beside here, there -
 - inside, outside -
- Identify and draw basic plane figures: square, rectangle, triangle, circle.
- Describe square, rectangle, triangle according to number of sides.
- Identify basic solid figures: sphere, cube, cone.
- Identify basic shapes in a variety of common objects and artifacts (balls, cans, windows, pictures, books, buildings, cars, etc.).
- Make congruent shapes and designs.



Teachers: Effective instruction in science requires hands-on experience and observation. In the words of the 1993 report from the American Association for the Advancement of Science, *Benchmarks for Science Literacy*, "From their very first day in school, students should be actively engaged in learning to view the world scientifically. That means encouraging them to ask questions about nature and to seek answers, collect things, count and measure things, make qualitative observations, organize collections and observations, discuss findings, etc."

While experience counts for much, book learning is also important, for it helps bring coherence and order to a child's scientific knowledge. Only when topics are presented systematically and clearly can children make steady and secure progress in their scientific learning. The child's development of scientific knowledge and understanding is in some ways a very disorderly and complex process, different for each child. But a systematic approach to the exploration of science, one that combines experience with book learning, can help provide essential building blocks for deeper understanding at a later time.

I. Living Things and Their Environments

Teachers: Introduce the idea of interdependence between living things and their environment.

A. HABITATS

- Living things live in environments to which they are particularly suited.
- Specific habitats and what lives there, for example: -
 - Forest [oak trees, squirrels, raccoons, snails, mice] -
 - Meadow and prairie [wildflowers, grasses, prairie dogs]
 - Underground [fungi, moles, worms] -
 - Desert [cactus, lizard, scorpion] -
 - Water [fish, oysters, starfish] -
- The food chain or food web: a way of picturing the relationships between living things
 - Animals: big animals eat little ones, big animals die and are eaten by little ones.
 - Plants: nutrients, water, soil, air, sunlight

Note: The food chain will be studied again in grade 3.

B. OCEANS AND UNDERSEA LIFE

- Most of the earth is covered with water.
- Locate oceans: Pacific, Atlantic, Indian, Arctic.
- Oceans are salt water (unlike fresh water rivers and lakes).
- Coast, shore, waves, tides (high and low)
- Currents, the Gulf Stream
- Landscape of the ocean floor: mountain peaks and deep valleys (trenches)
- Diversity of ocean life: from organisms too small for the eye to see (plankton), to giant whales
- Dangers to ocean life (for example, overfishing, pollution, oil spills)

C. ENVIRONMENTAL CHANGE AND HABITAT DESTRUCTION

- Environments are constantly changing, and this can sometimes pose dangers to specific habitats, for example: -
 - Effects of population and development -
 - Rainforest clearing, pollution, litter -

D. SPECIAL CLASSIFICATIONS OF ANIMALS

- Herbivores: plant-eaters (for example, elephants, cows, deer)
- Carnivores: flesh-eaters (for example, lions, tigers)
- Omnivores: plant and animal-eaters (for example, bears)
- Extinct animals (for example, dinosaurs)



Note: Major body systems will be studied in greater detail in grades 2–6.

II. The Human Body

A. BODY SYSTEMS

Teachers: Introduce the idea of body systems, and have children identify basic parts of the following body systems:

- Skeletal system: skeleton, bones, skull
- Muscular system: muscles
- Digestive system: mouth, stomach
- Circulatory system: heart and blood
- Nervous system: brain, nerves

B. GERMS, DISEASES, AND PREVENTING ILLNESS

- Taking care of your body: exercise, cleanliness, healthy foods, rest
- Vaccinations

III. Matter

Note: Children are likely to have a notion of atoms that, in absolute scientific terms, is inaccurate. The goal in this grade is to introduce concepts and terms that, over time, will be more precisely defined. Use the Teacher Handbook to define what you and your students should know and learn in Grade 1.

Teachers: Introduce children to the idea that everything is made of matter, and that all matter is made up of parts too small to see.

- Basic concept of atoms
- Names and common examples of three states of matter: -
 - solid (for example, wood, rocks) -
 - liquid (for example, water) -
 - gas (for example, air, steam) -
- Water as an example of changing states of matter of a single substance

IV. Properties of Matter: Measurement

Teachers: Have children describe and classify objects according to what they are made of, and according to their physical properties (color, shape, size, weight, texture, etc.).

- Units of measurement:
 - Length: centimeter, inch, foot -
 - Volume: gallon, quart -
- Temperature: degrees Fahrenheit

V. Introduction to Electricity

Teachers: Through reading aloud, observation and experiment, explore with children basic principles of electricity and electrical safety rules.

Note: Electricity will be studied in more detail in grade 4.

- Static electricity
- Basic parts of simple electric circuits (for example, batteries, wire, bulb or buzzer, switch)
- Conductive and nonconductive materials
- Safety rules for electricity (for example, never put your finger, or anything metallic, in an electrical outlet; never touch a switch or electrical appliance when your hands are wet or when you're in the bathtub; never put your finger in a lamp socket; etc.)

VI. Astronomy: Introduction to the Solar System

- Sun: source of energy, light, heat
- Moon: phases of the moon (full, half, crescent, new)
- The eight planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune)
(Note: In 2006, Pluto was classified as a dwarf planet.)
- Stars -
Constellations, Big Dipper -
The sun is a star. -
- Earth and its place in the solar system
The earth moves around the sun; the sun does not move.
The earth revolves (spins); one rotation takes one day (24 hours).
Sunrise and sunset
When it is day where you are, it is night for people on the opposite side of the earth.

See also World History and Geography: Spatial Sense.

VII. The Earth

A. GEOGRAPHICAL FEATURES OF THE EARTH'S SURFACE

- The shape of the earth, the horizon
- Oceans and continents
- North Pole and South Pole, Equator

B. WHAT'S INSIDE THE EARTH

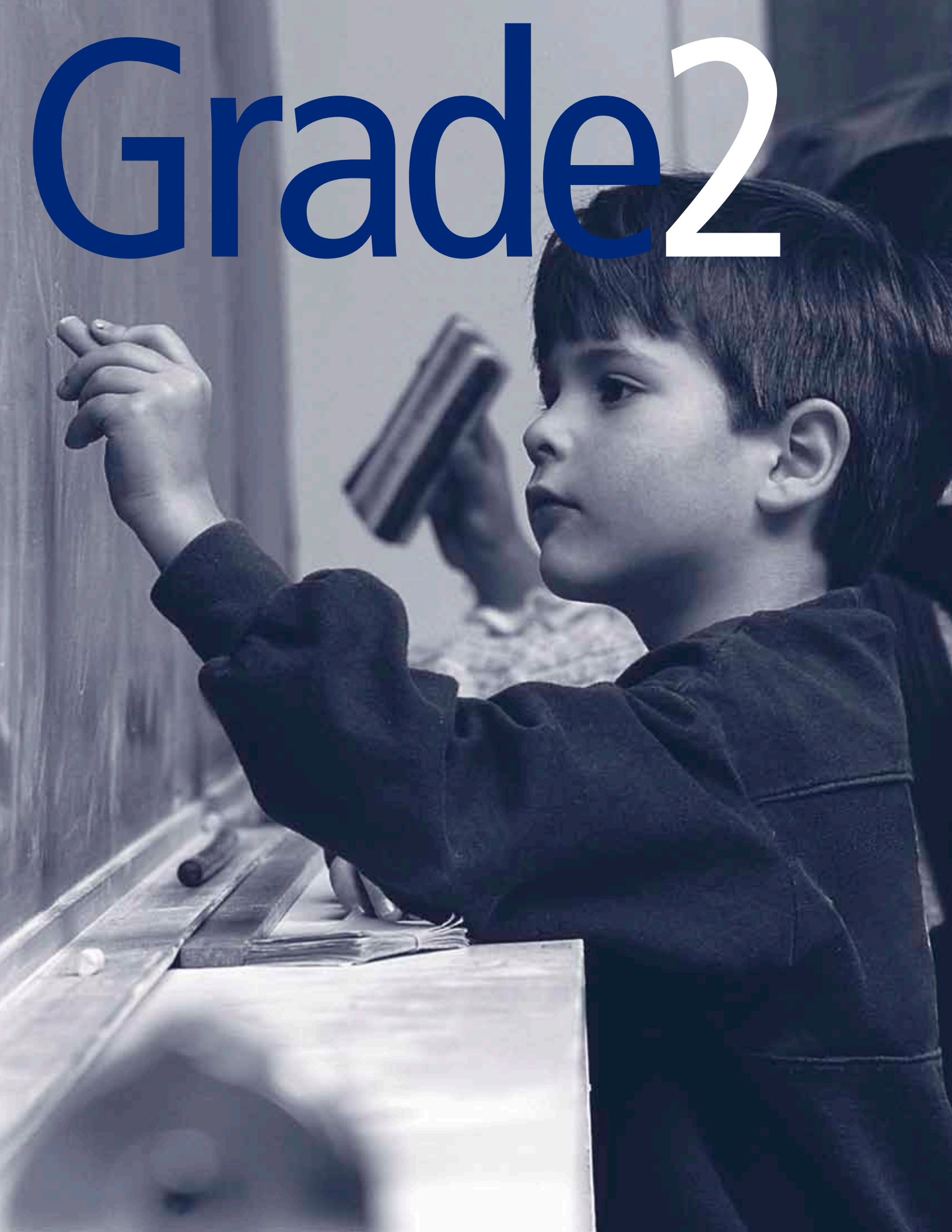
- Inside the earth -
Layers: crust, mantle, core -
High temperatures -
- Volcanoes and geysers
- Rocks and minerals
Formation and characteristics of different kinds of rocks: metamorphic, igneous, sedimentary
Important minerals in the earth (such as quartz, gold, sulfur, coal, diamond, iron ore)

Note: Topics in geology will be studied in more detail in grade 4.

VIII. Science Biographies

Rachel Carson (got people to stop using DDT) -
Thomas Edison (invented an electric light bulb) -
Edward Jenner (found a way to stop smallpox) -
Louis Pasteur (made milk safe to drink) -

See above, Environmental Change and Habitat Destruction, *re* Rachel Carson; Electricity, *re* Thomas Edison; Human Body: Vaccinations, *re* Edward Jenner; Human Body: Germs, Diseases, *re* Louis Pasteur.



Grade 2

Overview of Topics

Grade 2

Language Arts

- I. Listening and Speaking
 - A. Classroom Discussion
 - B. Presentation of Ideas and Information
 - C. Comprehension and Discussion of Read-Alouds—All Texts
 - D. Comprehension and Discussion of Read-Alouds—Fiction, Drama, and Poetry
 - E. Comprehension and Discussion of Read-Alouds—Nonfiction and Informational Text
- II. Reading
 - A. Phonics: Decoding and Encoding
 - B. Oral Reading and Fluency
 - C. Reading Comprehension—All Texts
 - D. Reading Comprehension—Fiction, Drama, and Poetry
 - E. Reading Comprehension—Nonfiction and Informational Text
- III. Writing
 - A. Narrative Writing
 - B. Informative/Explanatory Writing
 - C. Persuasive Writing (Opinion)
- IV. Language Conventions
 - A. Spelling
 - B. Parts of Speech and Sentence Structure
 - C. Capitalization and Punctuation
- V. Poetry
- VI. Fiction
 - A. Stories
 - B. Mythology of Ancient Greece
 - C. American Folk Heroes and Tall Tales
 - D. Literary Terms
- VII. Sayings and Phrases

History and Geography

World:

- I. Geography
 - A. Spatial Sense
 - B. Geographical Terms and Features
- II. Early Asian Civilizations
 - A. Geography of Asia
 - B. India
 - C. China
- III. Modern Japanese Civilization
 - A. Geography
 - B. Culture
- IV. The Ancient Greek Civilization

American:

- I. American Government: The Constitution
- II. The War of 1812

- III. Westward Expansion
 - A. Pioneers Head West
 - B. Native Americans
- IV. The Civil War
- V. Immigration and Citizenship
- VI. Fighting for a Cause
- VII. Geography of the Americas
 - A. North America
 - B. South America
- VIII. Symbols and Figures

Visual Arts

- I. Elements of Art
- II. Sculpture
- III. Kinds of Pictures: Landscapes
- IV. Abstract Art
- V. Architecture

Music

- I. Elements of Music
- II. Listening and Understanding
 - A. The Orchestra
 - B. Keyboard Instruments
 - C. Composers and Their Music
- III. Songs

Mathematics

- I. Numbers and Number Sense
- II. Fractions
- III. Money
- IV. Computation
 - A. Addition
 - B. Subtraction
 - C. Introduction to Multiplication
 - D. Solving Problems and Equations
- V. Measurement
 - A. Linear Measure
 - B. Weight
 - C. Capacity (Volume)
 - D. Temperature
 - E. Time
- VI. Geometry

Science

- I. Cycles in Nature
 - A. Seasonal Cycles
 - B. Life Cycles
 - C. The Water Cycle
- II. Insects
- III. The Human Body
 - A. Cells
 - B. Digestive and Excretory Systems
 - C. Taking Care of Your Body: A Healthy Diet
- IV. Magnetism
- V. Simple Machines
- VI. Science Biographies

Language Arts: Grade 2

The *Common Core State Standards for English Language Arts* emphasize the critical importance of building nonfiction background knowledge in a coherent and sequenced way within and across grades. This can be accomplished most effectively, at each grade level, by integrating the topics from history, geography, science, and the arts in the *Core Knowledge Sequence* into the language arts block. Note that in the *Sequence*, there are many cross-curricular connections to history and science topics within Language Arts (e.g., poems, stories, and sayings), as well as to visual arts and music, which can and should be integrated into the applicable domain of study.

For Grade 2, domains include: Early Asian Civilizations; Modern Japanese Civilization; The Ancient Greek Civilization; American Government: The Constitution; The War of 1812; Westward Expansion; The Civil War; Immigration and Citizenship; Fighting for a Cause; Cycles in Nature; Insects; The Human Body; Magnetism; Simple Machines.

NOTE: The objectives listed in sections I–IV of Language Arts below are consistent with the *Core Knowledge Language Arts* program and embed all of the skills and concepts within the *Common Core State Standards for English Language Arts*.

I. Listening and Speaking

Teachers: Traditional language arts instruction has typically accorded little, if any, attention to the ongoing development of children's listening and speaking ability. This failure to focus on the development of oral language in language arts instruction has been a serious oversight. Literacy, the ability to read and write written language, is highly correlated with students' oral language proficiency, and the ability to understand a text read aloud is a prerequisite for making sense of the same text in printed form. It is therefore essential that children build listening and speaking competency while also developing reading and writing skills.

A. CLASSROOM DISCUSSION

- Maintain attention and actively participate in discussions about a variety of topics, ideas, and texts in both small and large group settings.
- Speak clearly with volume appropriate to the setting.
- Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc.
- Ask questions to clarify conversations, directions, exercises, and/or classroom routines.
- Carry on and participate in a conversation over at least six turns, staying on topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age.
- Participate in a conversation or group discussion by making reference to, or building upon, a comment made by another person.
- Identify and express physical sensations, mental states, and emotions of self and others.
- Understand and use language to express spatial and temporal relationships (*up, down, first, last, before, after*, etc.).
- Understand and use narrative language to describe people, places, things, locations, events, actions.
- Understand and use common sayings and phrases such as "Don't judge a book by its cover" and "Better late than never" (see page 60).

B. PRESENTATION OF IDEAS AND INFORMATION

- Follow multi-step, oral directions.
- Give simple directions.
- Provide simple explanations.

- Recite a nursery rhyme, poem or song independently, using appropriate eye contact, volume and clear enunciation.
- Give oral presentations about personal experiences, topics of interest, stories, and summaries of factual information that have been presented orally, visually or through multimedia, using appropriate eye contact, volume and clear enunciation.

C. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—ALL TEXTS

Teachers: Written text makes use of richer vocabulary and more complex syntax than conversational language. It is important that young children be exposed not only to the language of everyday conversation but also to the richer and more formal language of books. This can be done through frequent reading aloud. Helping young children develop the ability to listen to and understand written texts read aloud must be an integral part of any initiative designed to build literacy.

At the second grade level, students are becoming increasingly skilled as independent readers. Nevertheless, research indicates that reading comprehension ability does not catch up to listening comprehension until the middle school grades. It is therefore still important to provide second graders with extensive read aloud experiences of both fiction and nonfiction texts.

Careful consideration should be given to the selection of books read aloud to ensure that the vocabulary and syntax presented is rich and complex. Leveled texts will not provide the rich language experience desired during read-alouds and should only be used as a starting point with students for whom English is a second language.

Grade appropriate read-aloud selections for poetry and fiction are included on pages 58–60. Nonfiction read-alouds should be selected on the basis of the history, science, music and visual art topics identified for Grade 2 students in the *Core Knowledge Sequence*, with emphasis on history and science read-alouds. It is strongly recommended that daily read-alouds focus on a single topic over a sustained period of time—about two weeks—rather than intermingling read-alouds on a variety of subjects. Careful consideration should be given to the order in which nonfiction read-alouds are presented to ensure that knowledge about a topic builds in a progressive and coherent way.

Following any read-aloud, children should participate in rich, structured conversations with an adult in response to the written text that has been read aloud. In this way, they can begin to orally practice comparing, analyzing, and synthesizing ideas in written text in much the same way as they will be expected to do as independent readers in the later grades.

- Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text, and poems.
- Distinguish the following genres of literature: fiction, nonfiction and drama.

Grasping Specific Details and Key Ideas

- Describe illustrations.
- Sequence four to six pictures illustrating events in a read aloud.
- Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc.
- Retell key details.
- Summarize in one's own words selected parts of a read-aloud.
- Ask questions to clarify information in a read-aloud.
- Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in a read-aloud.

Observing Craft and Structure

- Understand and use words and phrases heard in read-alouds.
- Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.
- Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.

Integrating Information and Evaluating Evidence

- Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.
- Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.
- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions.
- Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering “why” questions that require recognizing cause/effect relationships.
- Interpret information that is presented orally and then ask additional questions to clarify information or the topic in the read-aloud.
- Identify who is telling a story or providing information in a text.

D. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—FICTION, DRAMA, AND POETRY

- Retell a story, using narrative language to describe characters, setting(s), and the plot of the story in proper sequence.
- Compare and contrast characters from different stories.
- Describe characters in increasing depth by referring to dialogue and/or their actions in the story.
- Change some story events and provide a different story ending.
- Create and tell an original story, using narrative language to describe characters, setting(s), and the plot of the story in proper sequence.
- Distinguish fantasy from realistic text in a story.
- Identify the moral or lesson of a fable, folktale, or myth.
- Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.
- Identify repetitions in phrases, refrains, or sounds in poems or songs.
- Identify sensory language and how it is used to describe people, objects, places and events.
- Describe the use of rhyme, rhythm and sensory images used in poetry.

E. COMPREHENSION AND DISCUSSION OF READ-ALOUDS—NONFICTION AND INFORMATIONAL TEXT

Teachers: Select nonfiction read-aloud topics from the second grade history, science, music, and visual arts topics listed on pages 61–75, with emphasis on history and science.

- Generate questions and seek information from multiple sources to answer questions.
- Answer questions about the details of a nonfiction text, indicating which part of the text provided the information needed to answer specific questions.
- With assistance, categorize and organize facts and information within a given topic.
- With assistance, create and interpret timelines and lifelines related to read-alouds.
- Interpret information presented in diagrams, charts, graphs, etc.
- Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.

II Reading

A. PHONICS: DECODING AND ENCODING

Teachers: Learning to read requires understanding and mastering the written English code through explicit and systematic phonics instruction. Research suggests that phonics instruction is most effective when specific letter-sound relationships are taught and reinforced by having children both read and write the letter-sound correspondence being studied. Reading

and writing—decoding and encoding—are complementary processes that ensure mastery of the written code.

- Demonstrate understanding that a systematic, predictable relationship exists between written letters (graphemes) and spoken sounds (phonemes).
- Blend individual phonemes to pronounce printed words.
- Understand that sometimes two or more printed letters stand for a single sound.
- Read multi-syllable words containing any of the grapheme-phoneme correspondences listed below.
- Read and write words with inflectional endings, i.e., -s, -ed, -ing, -er, -est.
- Read, understand, and write contractions, i.e., *isn't*, *I'm*, *can't*, etc.
- Sort and classify words according to the spelling used to represent a specific phoneme.
- Read tricky spellings that can be sounded two ways, e.g., the letter 's' sounded /s/ as in *cats* and /z/ as in *dogs*.
- Read and spell chains of one-syllable words in which one sound is added, substituted, or omitted, i.e., read at > cat > bat > bad > bid.
- Read at least 100 words generally identified as high frequency words.

CONSONANT SOUNDS AND SPELLINGS TAUGHT IN SECOND GRADE

/b/ spelled 'b' as in *boy*, 'bb' as in *tubby*
 /d/ spelled 'd' as in *dog*, 'dd' as in *madder*, 'ed' as in *filled*
 /f/ spelled 'f' as in *fun*, 'ff' as in *stuff*
 /g/ spelled 'g' as in *get*, 'gg' as in *egg*
 /h/ spelled 'h' as in *him*
 /j/ spelled 'j' as in *jump*, 'g' as in *gem*, 'ge' as in *fringe*
 /k/ spelled 'c' as in *cat*, 'k' as in *kitten*, 'ck' as in *sick*, 'cc' as in *moccasin*
 /l/ spelled 'l' as in *lip*, 'll' as in *sell*
 /m/ spelled 'm' as in *mad*, 'mm' as in *hammer*
 /n/ spelled 'n' as in *net*, 'nn' as in *funny*, 'kn' as in *knock*
 /p/ spelled 'p' as in *pet*, 'pp' as in *happy*
 /r/ spelled 'r' as in *red*, 'rr' as in *earring*, 'wr' as in *wrist*
 /s/ spelled 's' as in *sit*, 'ss' as in *dress*, 'c' as in *cent*, 'ce' as in *prince*, 'se' as in *rinse*
 /t/ spelled 't' as in *top*, 'tt' as in *butter*, 'ed' as in *asked*
 /v/ spelled 'v' as in *vet*, 've' as in *twelve*
 /w/ spelled 'w' as in *wet*, 'wh' as in *when*
 /x/ spelled 'x' as in *tax*
 /y/ spelled 'y' as in *yes*
 /z/ spelled 'z' as in *zip*, 'zz' as in *buzz*, 's' as in *dogs*
 /ch/ spelled 'ch' as in *chop*, 'tch' as in *itch*
 /sh/ spelled 'sh' as in *ship*
 /th/ spelled 'th' as in *thin*
 /th/ spelled 'th' as in *then*
 /qu/ spelled 'qu' as in *quick*
 /ng/ spelled 'ng' as in *sing*, 'n' as in *pink*

VOWEL SOUNDS AND SPELLINGS TAUGHT IN SECOND GRADE

/a/ spelled 'a' as in *cat*
 /e/ spelled 'e' as in *get*, 'ea' as in *head*
 /i/ spelled 'i' as in *hit*, 'y' as in *myth*
 /o/ spelled 'o' as in *hot*, 'a' as in *wall*
 /u/ spelled 'u' as in *but*, 'o' as in *son*
 /ae/ spelled 'a_e' as in *cake*, 'ai' as in *wait*, 'ay' as in *day*, 'a' as in *paper*, 'ey' as in *hey*,
 'ei' as in *weight*, 'ea' as in *great*
 /ee/ spelled 'ee' as in *bee*, 'e' as in *me*, 'y' as in *funny*, 'ea' as in *beach*, 'e_e' as in *Pete*,
 'ie' as in *cookie*, 'i' as in *ski*, 'ey' as in *key*

/ie/ spelled 'i_e' as in *bike*, 'i' as in *biting*, 'y' as in *try*, 'ie' as in *tie*, 'igh' as in *night*
 /oe/ spelled 'o_e' as in *note*, 'oa' as in *boat*, 'oe' as in *toe*, 'o' as in *open*, 'ow' as in *snow*
 /ue/ spelled 'u_e' as in *cute*, 'u' as in *unit*, 'ue' as in *cue*
 /aw/ spelled 'aw' as in *paw*, 'au' as in *Paul*, 'augh' as in *caught*, 'ough' as in *bought*
 /oo/ spelled 'oo' as in *look*, 'u' as in *student*, 'ue' as in *blue*, 'ui' as in *fruit*, 'ew' as in *new*, 'u_e' as in *tune*
 /oo/ spelled 'oo' as in *soon*
 /ou/ spelled 'ou' as in *shout*, 'ow' as in *now*
 /oi/ spelled 'oi' as in *oil*, 'oy' as in *toy*
 /er/ spelled 'er' as in *her*, 'ur' as in *hurt*, 'ir' as in *bird*, 'ar' as in *dollar*
 /ar/ spelled 'ar' as in *car*
 /or/ spelled 'or' as in *for*, 'ore' as in *more*, 'our' as in *four*, 'oor' as in *door*
 Schwa spelled 'a' as in *about*
 /shun/ spelled 'tion' as in *mention*

B. ORAL READING AND FLUENCY

- Read decodable stories that incorporate the specific code knowledge that has been taught.
- Demonstrate increased accuracy, fluency, and expression on successive reading of a decodable text (90 wpm by the end of the year).
- Use phonics skills in conjunction with context to confirm or self-correct word recognition and understanding, rereading as necessary.
- Demonstrate understanding of and use commas and end punctuation while reading orally.
- Read aloud, alone, or with a partner at least 20 minutes each day.

C. READING COMPREHENSION—ALL TEXTS

Teachers: At the second grade level, students should be demonstrating ever-increasing code knowledge and fluency in their independent reading, allowing them to focus more intently on the meaning of what they are reading. This increased focus on reading comprehension is reflected in the number and complexity of the objectives below, as compared to earlier grades. However, it is important to remember that listening comprehension still far exceeds reading comprehension and that children's ability to talk about what they have heard and/or read will exceed their ability to demonstrate that understanding in writing.

- Demonstrate understanding of text—the majority of which is decodable—after - independent reading. -

Grasping Specific Details and Key Ideas

- Sequence four to six pictures illustrating events from a text that has been read - independently. -
- Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, etc.) about a text that has been read independently.
- Retell key details from a text that has been read independently.
- Summarize in one's own words selected parts of a text.
- Ask questions to clarify information about a text that has been read independently.
- Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.

Observing Craft and Structure

- Identify basic text features and what they mean, including title, table of contents, chapter headings and captions.
- Understand and use words and phrases from a text that has been read independently.
- Compare and contrast similarities and differences within a single text or between multiple texts read independently.
- Make personal connections to events or experiences in a text that has been read independently and/or make connections among several texts that have been read independently.

Integrating Information and Evaluating Evidence

- Prior to reading, identify what they know and have learned that may be related to the specific story or topic to be read.
- Use pictures accompanying the written text to check and support understanding.
- Make predictions prior to and while reading, based on the title, pictures, and/or text read thus far and then compare the actual outcomes to predictions.
- Answer questions that require making interpretations, judgments, or giving opinions about what is read independently, including answering “why” questions that require recognizing cause/effect relationships.
- Interpret information that is read independently and then ask questions to clarify this information.
- Identify who is telling a story or providing information in a text.
- Identify temporal words that link and sequence events, i.e., *first, next, then*, etc.
- Identify words that link ideas, i.e., *for example, also, in addition*.

D. READING COMPREHENSION—FICTION, DRAMA, AND POETRY

- Retell a story, using narrative language to describe characters, setting(s), and the plot of the story in proper sequence.
- Compare and contrast characters from different stories.
- Describe characters in increasing depth by referring to dialogue and/or their actions in the story.
- Change some story events and provide a different story ending.
- Distinguish fantasy from realistic text in a story.
- Identify the moral or lesson of a fable, folktale, or myth.
- Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.
- Identify sensory language and how it is used to describe people, objects, places, and events.
- Identify repetitions in phrases, refrains, or sounds in poems or songs.
- Describe the use of rhyme, rhythm and sensory images used in poetry.

E. READING COMPREHENSION—NONFICTION AND INFORMATIONAL TEXT

Teachers: Select nonfiction topics from the second grade history, science, music and visual arts topics listed on pages 61–75 with emphasis on history and science.

- Generate questions and seek information from multiple sources to answer questions.
- Answer questions about the details of a nonfiction text, indicating which part of the text provided the information needed to answer specific questions.
- Interpret information presented in diagrams, charts, graphs, etc.
- With assistance, categorize and organize facts and information for a given topic.
- With assistance, create and interpret timelines and lifelines related to text read independently.
- Distinguish text that describes events that happened long ago from text that describes contemporary or current events.

III. Writing

Teachers: Students develop ever increasing code knowledge and fluency in reading during second grade and, as a result, most will also become increasingly comfortable and competent in expressing their thoughts and ideas in writing.

Teachers should, however, have age appropriate expectations about what second grade student writing should resemble. Students’ spelling skills will often lag behind the code knowledge they demonstrate in reading. It is reasonable to expect that the students will use the letter-sound correspondences they have learned thus far to set down plausible spellings for the sounds in the word.

For example, a student who writes *doller* for *dollar*, *wate* for *wait* or *weight* has set down a plausible spelling for each sound in the word, using the code knowledge taught in this grade. This should be seen as acceptable spelling for this stage of literacy acquisition. With continued writing practice, students should begin to include more dictionary correct spellings for words that they read and write frequently. Dictionary-correct spelling as the rule will be a realistic goal when students have learned more spellings, had repeated writing practice opportunities and have learned how to use a dictionary to check spelling.

At the second grade level, teachers should model and scaffold use of a writing process, such as “Plan-Draft-Edit,” as students learn to write in various genres. It is important, though, not to dampen student enthusiasm for writing by rigidly insisting that *all* student writing be edited over and over again to bring the text to the “publication” stage. A sensible balance that encourages children to use their current skill knowledge when writing, as well as a simple editing rubric for review—without stifling creative expression—is optimal at the second grade level.

Writing to Reflect Audience, Purpose and Task

- Add details to writing.
- Begin to use tools, including technology, to plan, draft, and edit writing.

Conducting Research

- Gather information from experiences or provided text sources.

A. NARRATIVE WRITING

- Write a familiar story that includes setting(s), character(s), dialogue, and if appropriate, several events, using temporal words and phrases to indicate the chronology of events.
- Write a personal narrative.
- Create a title and an ending that are relevant to the narrative.

B. INFORMATIVE/EXPLANATORY WRITING

- Write about a topic, including a beginning and ending sentence, facts and examples relevant to the topic, and specific steps (if writing explanatory text).
- Group similar information into paragraphs.
- Use linking words such as *also*, *another*, *and*, etc. to connect ideas within a paragraph.

C. PERSUASIVE WRITING (OPINION)

- Express an opinion or point of view in writing, providing reasons and supporting details for preference or opinion.
- Use words to link opinions with reasons or supporting details, such as *because*, *also*, *another*.
- Create a title that is relevant to the topic or subject of the text.
- If writing about a specific book or read-aloud, refer to the content of the text.

IV. Language Conventions

- Form sentences and paragraphs to communicate thoughts and ideas.
- Apply basic spelling conventions.
- Use basic capitalization and punctuation in sentences to convey meaning.

A. SPELLING

- Write phonemically plausible spellings for words using current code knowledge, e.g., write *doller* for *dollar*, *wate* for *wait* or *weight*.
- Write words, phrases, and sentences from dictation, applying phonics knowledge.
- Alphabetize words to the second letter.
- Use a children’s dictionary, with assistance, to check spelling and verify the meaning of words.
- Identify and use synonyms, antonyms, homophones, and compound words.

B. PARTS OF SPEECH AND SENTENCE STRUCTURE

- Recognize, identify and use subject, object, and possessive pronouns, i.e., *I, me, my, they, them*, orally, in written text and in own writing.
- Recognize, identify and use correct noun-pronoun agreement orally, in written text and in own writing.
- Recognize, identify and use common and proper nouns, orally, in written text, and in own writing.
- Recognize, identify, and use the articles *a* and *an* appropriately orally, in written text and in own writing.
- Recognize, identify and use selected regular and irregular plural nouns orally, in written text and in own writing.
- Recognize, identify and use selected regular and irregular past, present, and future tense verbs orally, in written text, and in own writing.
- Recognize, identify, and use adjectives orally, in written text, and in own writing.
- Recognize, identify, and use adverbs orally, in written text, and in own writing.
- Recognize, identify and use subjects and predicates, orally, in written text, and in own writing.
- Recognize, identify, and use statements, questions, and exclamations orally, in written text, and in own writing.
- Recognize, identify, and use complete simple and compound sentences.

C. CAPITALIZATION, AND PUNCTUATION

- Capitalize the first word in a sentence, the pronoun *I*, and proper nouns (names and places,) months, days of the week, titles of people, and addresses.
- Recognize, identify and use abbreviations with correct punctuation for the months, days of the week, titles of people, and addresses.
- Identify and use end punctuation, including periods, question marks, and exclamation points.
- Use commas appropriately in greetings and closings of letters, dates, items in a series, and addresses.
- Write a simple friendly letter.
- Use apostrophes to create contractions and indicate possession, i.e., cat's meow.
- Use quotation marks appropriately to designate direct speech.

V. Poetry

Note: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose children to more poetry, old and new, and to have children write their own poems. To bring children into the spirit of poetry, read it aloud and encourage them to read it aloud so they can experience the music in the words.

See below, Literary Terms—
limerick, *re* Edward Lear.

Bed in Summer (Robert Louis Stevenson) -
Bee! I'm expecting you (Emily Dickinson) -
Buffalo Dusk (Carl Sandburg) -
Caterpillars (Aileen Fisher) -
Discovery (Harry Behn) -
Harriet Tubman (Eloise Greenfield) -
Hurt No Living Thing (Christina Rossetti) -
Lincoln (Nancy Byrd Turner) -
The Night Before Christmas (Clement Clarke Moore) -
Rudolph Is Tired of the City (Gwendolyn Brooks) -
Seashell (Federico Garcia Lorca) -
Smart (Shel Silverstein) -
Something Told the Wild Geese (Rachel Field) -
There Was an Old Man with a Beard (Edward Lear) -
Who Has Seen the Wind? (Christina Rossetti) -
Windy Nights (Robert Louis Stevenson) -

VI. Fiction

Note: Review Drama from first grade, and engage children in dramatic activities, possibly with one of the stories below in the form of a play.

Teachers: The titles listed below are available in a variety of editions, including both adaptations for novice readers and others that lend themselves to reading aloud to children—for example, *Charlotte's Web* or "How the Camel Got His Hump." It is recommended that you provide a mixture of texts. Editions designed for beginning readers can help children practice decoding skills. Read-aloud texts, which the children may not be capable of reading on their own, can be understood when the words are read aloud and talked about with a helpful adult. Such active listening to vocabulary and syntax that go beyond the limits of grade-level readability formulas is an important part of developing an increasingly sophisticated verbal sense.

The titles below constitute a core of stories for this grade. Expose children to many more stories, including classic picture books, read-aloud books, etc. (In schools, teachers across grade levels should communicate their choices in order to avoid undue repetition.) Children should also be exposed to nonfiction prose—biographies, books on science and history, books on art and music—and they should be given opportunities to tell and write their own stories.

Note: "The Magic Paintbrush" is also known as "Tye May and the Magic Brush" and "Liang [or Ma Liang] and the Magic Brush."

See also World History 2: India, re "The Blind Men and the Elephant" and "The Tiger, the Brahman, and the Jackal."

A. STORIES

Beauty and the Beast
 The Blind Men and the Elephant (a fable from India)
A Christmas Carol (Charles Dickens)
Charlotte's Web (E. B. White)
 The Emperor's New Clothes (Hans Christian Andersen)
 The Fisherman and His Wife (Brothers Grimm)
 How the Camel Got His Hump (a "Just-So" story by Rudyard Kipling)
 Iktomi stories (legends of the Plains Indian trickster figure, such as Iktomi Lost His Eyes; Iktomi and the Berries; Iktomi and the Boulder)
 The Magic Paintbrush (a Chinese folktale)
 El Pajaro Cu (a Hispanic folktale)
 selections from *Peter Pan* (James M. Barrie)
 Talk (a West African folktale)
 The Tiger, the Brahman, and the Jackal (a folktale from India)
 The Tongue-Cut Sparrow (a folktale from Japan)

B. MYTHOLOGY OF ANCIENT GREECE

Teachers: See *World History and Geography 2: The Ancient Greek Civilization*.

Note: Roman names are listed in parentheses because, although children do not study ancient Rome until third grade in the *Core Knowledge Sequence*, you are likely to encounter both Greek and Roman names in various books of myths you may use.

- Gods of Ancient Greece (and Rome) -

Zeus (Jupiter)	Hermes (Mercury) -
Hera (Juno)	Athena (Minerva) -
Apollo (Apollo)	Hephaestus (Vulcan) -
Artemis (Diana)	Dionysus (Bacchus) -
Poseidon (Neptune)	Eros (Cupid) -
Aphrodite (Venus)	Hades (Pluto) -
Demeter (Ceres) -	
- Mount Olympus: home of the gods
- Mythological creatures and characters -
 - Atlas (holding the world on his shoulders) -
 - centaurs -
 - Cerberus -
 - Pegasus -
 - Pan -
- Greek Myths -
 - Prometheus (how he brought fire from the gods to men) -
 - Pandora's Box -
 - Oedipus and the Sphinx -
 - Theseus and the Minotaur -
 - Daedalus and Icarus -

Note: Students will read more myths in third grade; see Language Arts 3.

Arachne the Weaver
Swift-footed Atalanta
Demeter and Persephone
Hercules (Heracles) and the Labors of Hercules

C. AMERICAN FOLK HEROES AND TALL TALES

Teachers: Johnny Appleseed and Casey Jones were introduced in kindergarten.

See also Music 2: III. Songs,
"John Henry."

Paul Bunyan
Johnny Appleseed
John Henry
Pecos Bill
Casey Jones

D. LITERARY TERMS

Teachers: In the course of their studies, children should learn the following terms:

myth -
tall tale -
limerick -

VII. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

Back to the drawing board
Better late than never
Cold feet
Don't cry over spilled milk.
Don't judge a book by its cover.
Easier said than done
Eaten out of house and home
Get a taste of your own medicine
Get up on the wrong side of the bed
In hot water
Keep your fingers crossed.
Practice what you preach.
The real McCoy
Two heads are better than one.
Turn over a new leaf
Where there's a will there's a way.
You can't teach an old dog new tricks.

History and Geography

History and Geography: Grade 2

Teachers: In second grade, children often study aspects of the world around them: the family, the school, the community, etc. The following guidelines are meant to broaden and complement that focus. The goal of studying selected topics in World History in second grade is to foster curiosity and the beginnings of understanding about the larger world outside the child's locality, and about varied civilizations and ways of life. This can be done through a variety of means: story, drama, art, music, discussion, and more.

The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge includes a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures.

WORLD HISTORY AND GEOGRAPHY

I. Geography

A. SPATIAL SENSE (Working with Maps, Globes, and Other Geographic Tools)

Teachers: Review and reinforce topics from grade 1, including:

- Name your continent, country, state, and community.
- Understand that maps have keys or legends with symbols and their uses.
- Find directions on a map: east, west, north, south.
- Identify major oceans: Pacific, Atlantic, Indian, Arctic.
- The seven continents: Asia, Europe, Africa, North America, South America, Antarctica, Australia.
- Locate: Canada, United States, Mexico, Central America.
- Locate: the Equator, Northern Hemisphere and Southern Hemisphere, North and South Poles.

B. GEOGRAPHICAL TERMS AND FEATURES

Teachers: Review terms from grade 1 (peninsula, harbor, bay, island), and add:

- coast, valley, prairie, desert, oasis

II. Early Asian Civilizations

Teachers: Since religion is a shaping force in the story of civilization, the *Core Knowledge Sequence* introduces children in the early grades to major world religions, beginning with a focus on geography and major symbols and figures. The purpose is not to explore matters of theology but to provide a basic vocabulary for understanding many events and ideas in history. The goal is to familiarize, not proselytize; to be descriptive, not prescriptive. The tone should be one of respect and balance: no religion should be disparaged by implying that it is a thing of the past. To the question, "Which one is true?" an appropriate response is: "People of different faiths believe different things to be true. The best people to guide you on this right now are your parents or someone at home."

A. GEOGRAPHY OF ASIA

- The largest continent, with the most populous countries in the world
- Locate: China, India, Japan

B. INDIA

- Indus River and Ganges River
- Hinduism -
Brahma, Vishnu, Shiva -

See also below, American History and Geography: Geography of the Americas.

See also Language Arts 2: "The Tiger, the Brahman, and the Jackal," and "The Blind Men and the Elephant," re India.

See also Visual Arts 2:
Architecture: Great Stupa,
re Buddhism.

See also Language Arts 2:
"The Magic Paintbrush."

Note: Students will study
feudal Japan in grade 5.
See also Language Arts 2:
"The Tongue-Cut Sparrow";
Visual Arts 2: Elements of
Art: Hokusai, *The Great
Wave*; and, Architecture:
Himeji Castle.

See also Language Arts 2:
Greek Myths; Visual Arts 2:
Sculpture, Discus Thrower;
Architecture, The Parthenon.

Note: Suggested topics
for learning about
Alexander include his
tutoring by Aristotle, his
horse Bucephalus, and the
legend of the Gordian knot.

Many holy books, including the Rig Veda

- Buddhism
Prince Siddhartha becomes Buddha, "the Enlightened One"
Buddhism begins as an outgrowth of Hinduism in India, and then spreads through
many countries in Asia. -
King Asoka (also spelled Ashoka) -

C. CHINA

Teachers: Students will study China again in grade 4. Second grade teachers should examine the fourth grade guidelines to see how these topics build in the later grade.

- Yellow (Huang He) and Yangtze (Chang Jiang) Rivers
- Teachings of Confucius (for example, honor your ancestors)
- Great Wall of China
- Invention of paper
- Importance of silk
- Chinese New Year

III. Modern Japanese Civilization

A. GEOGRAPHY

- Locate relative to continental Asia: "land of the rising sun"
- A country made up of islands; four major islands
- Pacific Ocean, Sea of Japan
- Mt. Fuji
- Tokyo

B. CULTURE

- Japanese flag
- Big modern cities, centers of industry and business
- Traditional craft: origami
- Traditional costume: kimono

IV. The Ancient Greek Civilization

Teachers: Students will study Greece again in grade 6, with a focus on the legacy of ideas from ancient Greece and Rome.

- Geography: Mediterranean Sea and Aegean Sea, Crete
- Sparta
- Athens as a city-state: the beginnings of democracy
- Persian Wars: Marathon and Thermopylae
- Olympic games
- Worship of gods and goddesses
- Great thinkers: Socrates, Plato, and Aristotle
- Alexander the Great

American History and Geography



AMERICAN HISTORY AND GEOGRAPHY

Teachers: The study of American history begins in grades K-2 with a brief overview of major events and figures, from the earliest days to recent times. A more in-depth, chronological study of American history begins again in grade 3 and continues onward. The term “American” here generally, but not always, refers to the lands that became the United States. Other topics regarding North, Central, and South America may be found in the World History and Geography sections of this Sequence.

I. American Government: The Constitution

Teachers: Through analogies to familiar settings—the family, the school, the community—discuss some basic questions regarding American government, such as: “What is government?” “What are some basic functions of American government?” (Making and enforcing laws; settling disputes; protecting rights and liberties, etc.) Only basic questions need to be addressed at this grade level. In fourth grade students will examine in more detail specific issues and institutions of American government, including, for example, the separation of powers, and the relation between state and federal government.

- American government is based on the Constitution, the highest law of our land.
- James Madison, the “Father of the Constitution”
- Government by the consent of the governed: “We the people”

II. The War of 1812

- President James Madison and Dolley Madison
- British impressment of American sailors
- Old Ironsides
- British burn the White House
- Fort McHenry, Francis Scott Key, and “The Star-Spangled Banner”
- Battle of New Orleans, Andrew Jackson

III. Westward Expansion

Teachers: Students will study Westward Expansion in greater depth and detail in grade 5. Second grade teachers should examine the fifth grade guidelines to see how these topics build in the later grade. It is recommended that second grade teachers keep their focus on the people and events specified here, and leave for fifth grade the figures and ideas specified for that grade.

A. PIONEERS HEAD WEST

- New means of travel -
 - Robert Fulton, invention of the steamboat -
 - Erie Canal -
 - Railroads: the Transcontinental Railroad -
- Routes west: wagon trains on the Oregon Trail
- The Pony Express

B. NATIVE AMERICANS

- Sequoyah and the Cherokee alphabet
- Forced removal to reservations: the “Trail of Tears”
- Some Native Americans displaced from their homes and ways of life by railroads (the “iron horse”)
- Effect of near extermination of buffalo on Plains Indians

See also Language Arts 2: Iktomi stories.

IV. The Civil War

Teachers: Students will study the Civil War in greater depth and detail in grade 5. Second grade teachers should examine the fifth grade guidelines to see how these topics build in the later grade.

- Controversy over slavery
- Harriet Tubman, the “underground railroad”
- Northern v. Southern states: Yankees and Rebels
- Ulysses S. Grant and Robert E. Lee
- Clara Barton, “Angel of the Battlefield,” founder of American Red Cross
- President Abraham Lincoln: keeping the Union together
- Emancipation Proclamation and the end of slavery

V. Immigration and Citizenship

Teachers: Students will study Immigration and Urbanization in greater depth and detail in grade 6. Second grade teachers should examine the sixth grade American History guidelines to see how these topics build in the later grade. In second grade, it is recommended that teachers use narrative, biography, and other accessible means to introduce children to the idea that many people have come to America (and continue to come here) from all around the world, for many reasons: to find freedom, to seek a better life, to leave behind bad conditions in their native lands, etc. Discuss with children: What is an immigrant? Why do people leave their home countries to make a new home in America? What is it like to be a newcomer in America? What hardships have immigrants faced? What opportunities have they found?

- America perceived as a “land of opportunity”
- The meaning of “e pluribus unum” (a national motto you can see on the back of coins)
- Ellis Island and the significance of the Statue of Liberty
- Millions of newcomers to America
 - Large populations of immigrants settle in major cities (such as New York, Chicago, Philadelphia, Detroit, Cleveland, Boston, San Francisco)
- The idea of citizenship
 - What it means to be a citizen of a nation
 - American citizens have certain rights and responsibilities (for example, voting, eligible to hold public office, paying taxes) -
 - Becoming an American citizen (by birth, naturalization) -

VI. Fighting for a Cause

Teachers: Through narrative, biography, and other accessible means, introduce students to the idea that while America is a country founded upon “the proposition that all men are created equal,” equality has not always been granted to all Americans. Many people, however, have dedicated themselves to the struggle to extend equal rights to all Americans. Specific figures and issues to study include:

Note: In grade 4, students will study, in the historical context of antebellum reform, early pioneers in the women’s movement in America, including Elizabeth Cady Stanton, Lucretia Mott, Margaret Fuller, and Sojourner Truth.

- Susan B. Anthony and the right to vote
- Eleanor Roosevelt and civil rights and human rights
- Mary McLeod Bethune and educational opportunity
- Jackie Robinson and the integration of major league baseball
- Rosa Parks and the bus boycott in Montgomery, Alabama
- Martin Luther King, Jr. and the dream of equal rights for all
- Cesar Chavez and the rights of migrant workers

Note: Students will study the modern American civil rights movement in more depth and detail in grade 8.

Note: In fifth grade, the American Geography requirements include "fifty states and capitals." Teachers in grades two through four may want to introduce these incrementally to prepare for the fifth grade requirement.

VII. Geography of the Americas

A. NORTH AMERICA

- North America: Canada, United States, Mexico
- The United States
 - Fifty states: 48 contiguous states, plus Alaska and Hawaii
 - Current territories (American Samoa, Guam, Puerto Rico, and U.S. Virgin Islands)
 - Mississippi River
 - Appalachian and Rocky Mountains
 - Great Lakes
- Atlantic and Pacific Oceans, Gulf of Mexico, Caribbean Sea, West Indies
- Central America

B. SOUTH AMERICA

- Brazil: largest country in South America, Amazon River, rain forests
- Peru and Chile: Andes Mountains
- Locate: Venezuela, Colombia, Ecuador
- Bolivia: named after Simon Bolivar, "The Liberator"
- Argentina: the Pampas
- Main languages: Spanish and (in Brazil) Portuguese

VIII. Symbols and Figures

- Recognize and become familiar with the significance of
 - U. S. flag: current and earlier versions -
 - Statue of Liberty -
 - Lincoln Memorial -

Visual Arts: Grade 2

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

I. Elements of Art

Teachers: The generally recognized elements of art include line, shape, form, space, light, texture, and color. In second grade, continue when appropriate to discuss qualities of line, shape, color, and texture that children learned about in kindergarten and first grade.

- Recognize lines as horizontal, vertical, or diagonal.
- Observe the use of line in
Pablo Picasso, *Mother and Child*
Katsushika Hokusai, *The Great Wave at Kanagawa Nami-Ura* from *Thirty-six Views of Mt. Fuji*

See also World History 2: Japan, re Hokusai.

II. Sculpture

- Observe shape, mass, and line in sculptures, including
The Discus Thrower
Flying Horse (from Wu-Wei, China) -
Auguste Rodin, *The Thinker*

See also World History 2: The Ancient Greek Civilization, re *The Discus Thrower*; and China, re *Flying Horse*.

III. Kinds of Pictures: Landscapes

Teachers: Briefly review from grade 1: portrait, self-portrait, and still life. In discussing the following works, ask the children about their first impressions—what they notice first, and what the picture makes them think of or feel. Go on to discuss lines, shapes, colors, and textures; details not obvious at first; why they think the artist chose to depict things in a certain way, etc.

- Recognize as landscapes and discuss
Thomas Cole, *The Oxbow* (also known as *View from Mount Holyoke, Northampton, Massachusetts, after a Thunderstorm*) -
El Greco, *View of Toledo* (also known as *Toledo in a Storm*) -
Henri Rousseau, *Virgin Forest*
Vincent van Gogh, *The Starry Night*

Note: You may wish to recall from kindergarten, Joan Miró, *People and Dog in the Sun*.

IV. Abstract Art

- Compare lifelike and abstract animals, including -
Paintings of birds by John James Audubon -
Albrecht Dürer, *Young Hare*
Paul Klee, *Cat and Bird*
Pablo Picasso, *Bull's Head* (made from bicycle seat and handlebars) -
Henri Matisse, *The Snail* (also known as *Chromatic Composition*) -
- Observe and discuss examples of abstract painting and sculpture, including
Marc Chagall, *I and the Village*
Constantin Brancusi, *Bird in Space*

V. Architecture

See also World History 2:
The Ancient Greek
Civilization, *re* the
Parthenon; India, *re* the
Great Stupa; Japan, *re*
Himeji Castle.




- Understand architecture as the art of designing buildings.
- Understand symmetry and a line of symmetry, and observe symmetry in the design of some buildings (such as the Parthenon).
- Noting line, shape, and special features (such as columns and domes), look at
The Parthenon
Great Stupa (Buddhist temple in Sanchi, India)
Himeji Castle (also known as “White Heron Castle,” Japan)
The Guggenheim Museum (New York City)

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.

The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).

I. Elements of Music

- Through participation, become familiar with basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
 - Recognize a steady beat, accents, and the downbeat; play a steady beat.
 - Move responsively to music (marching, walking, hopping, swaying, etc.).
 - Recognize short and long sounds.
 - Discriminate between fast and slow; gradually slowing down and getting faster.
 - Discriminate between differences in pitch: high and low.
 - Discriminate between loud and soft; gradually increasing and decreasing volume.
 - Understand that melody can move up and down.
 - Hum the melody while listening to music.
 - Echo short rhythms and melodic patterns.
 - Play simple rhythms and melodies.
 - Recognize like and unlike phrases.
 - Recognize timbre (tone color).
 - Sing unaccompanied, accompanied, and in unison.
 - Recognize verse and refrain.
 - Recognize that musical notes have names.
 - Recognize a scale as a series of notes.
 - Sing the C major scale using “do re mi” etc.
- Understand the following notation: -
 - ≡ staff,  treble clef, names of lines and spaces in the treble clef -
 - whole note  half note  quarter note -
 - whole rest, half rest, quarter rest -

II. Listening and Understanding

Teachers: Expose children to a wide range of music, including children’s music, popular instrumental music, and music from various cultures.

A. THE ORCHESTRA

- Review families of instruments: strings, brass, woodwinds, percussion.
- Become familiar with instruments in the string family—violin, viola, cello, double bass—and listen to
 - Camille Saint-Saëns, from *Carnival of the Animals*: “The Swan” (cello) and “Elephants” (double bass)
 - Antonio Vivaldi, *The Four Seasons* (see below, Composers and Their Music)
- Become familiar with instruments in the percussion family—for example, drums (timpani, snare), xylophone, wood block, maracas, cymbals, triangle, tambourine—and listen to
 - Carlos Chavez, *Toccata for Percussion*, third movement.

Note: In third grade, students will take a closer look at the brass and woodwind families.

Note: If you have recordings or other resources, also introduce African drumming and Latin American music with percussion.

See also below, Composers and Their Music, Bach, *Toccata and Fugue in D minor* (organ).

B. KEYBOARD INSTRUMENTS

- Recognize that the piano and organ are keyboard instruments, and listen to a variety of keyboard music, including:
Wolfgang Amadeus Mozart, *Rondo Alla turca* from *Piano Sonata K. 331*
Ludwig van Beethoven, *Für Elise*
Felix Mendelssohn, from *Songs without Words*, “Spring Song” -

C. COMPOSERS AND THEIR MUSIC

Teachers: Provide brief, child-friendly biographical profiles of the following composers, and listen to representative works:

- Antonio Vivaldi, *The Four Seasons*
- Johann Sebastian Bach, *Minuet in G major* (collected by Bach in the *Anna Magdalena Notebook*); *Jesu, Joy of Man's Desiring*; *Toccata and Fugue in D minor*
- Ludwig van Beethoven, *Symphony No. 6 (“Pastoral”)*: first movement and from final movement, “Thunderstorm” to end of symphony

See also Language Arts
2: American tall tales, re
“Casey Jones,” and “John
Henry.”

See also American History
2: Civil War, re “Dixie,”
“Follow the Drinking
Gourd,” and “When Johnny
Comes Marching Home.”

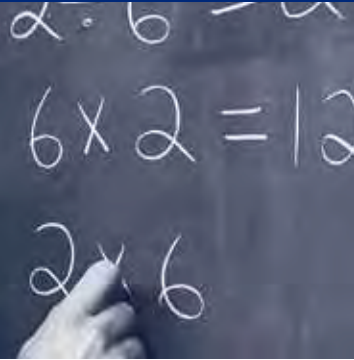
See also American History
2: War of 1812, re “The
Star-Spangled Banner.”

III. Songs

Buffalo Gals
Casey Jones (chorus only)
Clementine
Dixie
Do-Re-Mi
The Erie Canal
Follow the Drinking Gourd
Good Bye Old Paint
Home on the Range
I've Been Working on the Railroad
John Henry
Old Dan Tucker
The Star-Spangled Banner
Swing Low, Sweet Chariot
This Land Is Your Land
When Johnny Comes Marching Home

Mathematics: Grade 2

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving higher order skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.



I. Numbers and Number Sense

- Write numbers to 1,000.
- Read and write words for numbers from one to one-hundred.
- Order and compare numbers to 1,000, using the signs $<$, $>$, and $=$.
- Count -
 - by twos, threes, fives, and tens -
 - by tens from any given number -
 - by hundreds to 1,000; by fifties to 1,000 -
 - forward and backward -
- Use a number line.
- Use tallies.
- Identify ordinal position, 1st to 20th, and write words for ordinal numbers, first to twentieth.
- Identify even and odd numbers.
- Identify dozen; half-dozen; pair.
- Recognize place value: ones, tens, hundreds, thousands.
- Write numbers up to hundreds in expanded form (for example $64 = 60 + 4$; $367 = 300 + 60 + 7$).
- Given a number, identify one more and one less; ten more and ten less.
- Round to the nearest ten.
- Create and interpret simple bar graphs.
- Identify and extend numerical and symbolic patterns.
- Record numeric data systematically and find the lowest and highest values in a data set.

II. Fractions

- Recognize these fractions as part of a whole set or region and write the corresponding numerical symbols: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{8}$, $\frac{1}{10}$.
- Recognize fractions that are equal to 1.

III. Money

- Recognize relative values of a penny, nickel, dime, quarter, and dollar.
- Write amounts of money using \$ and ¢ signs, and the decimal point.
- Show how different combinations of coins equal the same amounts of money.
- Add and subtract amounts of money.

IV. Computation

A. ADDITION

- Achieve timed mastery of addition facts (2 seconds).
- Recognize what an addend is.
- Know how to write addition problems horizontally and vertically.
- Know how to add in any order and check a sum by changing the order of the addends.
- Estimate the sum.
- Solve two-digit and three-digit addition problems with and without regrouping.
- Find the sum (up to 999) of any two whole numbers.
- Add three two-digit numbers.
- Practice doubling (adding a number to itself).

B. SUBTRACTION

- Understand the inverse relation between addition and subtraction; use addition to check subtraction.
- Know addition and subtraction “fact families.”
- Achieve mastery of subtraction facts.
- Estimate the difference.
- Know how to write subtraction problems horizontally and vertically.
- Solve two-digit and three-digit subtraction problems with and without regrouping.
- Given two whole numbers of 999 or less, find the difference.

C. INTRODUCTION TO MULTIPLICATION

- Recognize the “times” sign (\times).
- Know what “factor” and “product” mean.
- Understand that you can multiply numbers in any order.
- Multiplication facts: know the product of any single-digit number \times 1, 2, 3, 4, 5.
- Know what happens when you multiply by 1, by 0, and by 10.
- Practice simple word problems involving multiplication.

D. SOLVING PROBLEMS AND EQUATIONS

- Solve basic word problems.
- Write and solve simple equations in the form of $___ - 9 = 7$; $7 + ___ = 16$; $4 \times ___ = 8$.

V. Measurement

A. LINEAR MEASURE

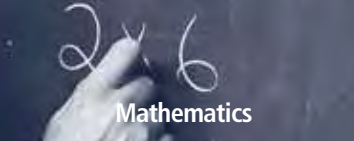
- Make linear measurements in feet and inches, and in centimeters.
- Know that one foot = 12 inches.
- Know abbreviations: ft., in.
- Measure and draw line segments in inches to $\frac{1}{2}$ inch, and in centimeters.
- Estimate linear measurements, then measure to check estimates.

B. WEIGHT

- Compare weights of objects using a balance scale.
- Estimate and measure weight in pounds, and know abbreviation: lb.

C. CAPACITY (VOLUME)

- Estimate and measure capacity in cups.
- Measure liquid volumes: cups, pints, quarts, gallons.
- Compare U.S. and metric liquid volumes: quart and liter (one liter is a little more than one quart).



D. TEMPERATURE

- Measure and record temperature in degrees Fahrenheit to the nearest 2 degrees.
- Know the degree sign: $^{\circ}$

E. TIME

- Read a clock face and tell time to five-minute intervals.
- Know how to distinguish time as A.M. or P.M.
- Understand noon and midnight.
- Solve problems on elapsed time (how much time has passed?).
- Using a calendar, identify the date, day of the week, month, and year.
- Write the date using words and numbers.

VI. Geometry

Teachers: Review and reinforce topics from grade 1 as necessary (left and right, orientation and position, etc.)

- Identify and draw basic plane figures: square, rectangle, triangle, circle.
- Describe square, rectangle, triangle according to number of sides; distinguish between square and rectangle as regards length of sides (a square has sides of equal length).
- Measure perimeter in inches of squares and rectangles.
- Identify solid figures—sphere, cube, pyramid, cone, cylinder—and associate solid figures with planar shapes: sphere (circle), cube (square), pyramid (triangle).
- Make congruent shapes and designs.
- Identify lines as horizontal; vertical; perpendicular; parallel.
- Name lines and line segments (for example, line AB; segment CD).
- Identify a line of symmetry, and create simple symmetric figures.



Teachers: Effective instruction in science requires hands-on experience and observation. In the words of the 1993 report from the American Association for the Advancement of Science, Benchmarks for Science Literacy, "From their very first day in school, students should be actively engaged in learning to view the world scientifically. That means encouraging them to ask questions about nature and to seek answers, collect things, count and measure things, make qualitative observations, organize collections and observations, discuss findings, etc."

While experience counts for much, book learning is also important, for it helps bring coherence and order to a child's scientific knowledge. Only when topics are presented systematically and clearly can children make steady and secure progress in their scientific learning. The child's development of scientific knowledge and understanding is in some ways a very disorderly and complex process, different for each child. But a systematic approach to the exploration of science, one that combines experience with book learning, can help provide essential building blocks for deeper understanding at a later time.

I. Cycles in Nature

A. SEASONAL CYCLES

- The four seasons and earth's orbit around the sun (one year)
- Seasons and life processes -
 - Spring: sprouting, sap flow in plants, mating and hatching -
 - Summer: growth -
 - Fall: ripening, migration -
 - Winter: plant dormancy, animal hibernation -

B. LIFE CYCLES

- The life cycle: birth, growth, reproduction, death
- Reproduction in plants and animals -
 - From seed to seed with a plant -
 - From egg to egg with a chicken -
 - From frog to frog -
 - From butterfly to butterfly: metamorphosis (see below: Insects) -

C. THE WATER CYCLE

- Most of the earth's surface is covered by water.
- The water cycle -
 - Evaporation and condensation -
 - Water vapor in the air, humidity -
 - Clouds: cirrus, cumulus, stratus -
 - Precipitation, groundwater -

Note: In fourth grade, students will review the water cycle and study other topics in meteorology.

II. Insects

- Insects can be helpful and harmful to people.
 - Helpful: pollination; products like honey, beeswax, and silk; eat harmful insects
 - Harmful: destroy crops, trees, wooden buildings, clothes; carry disease; bite or sting
- Distinguishing characteristics -
 - Exoskeleton, chitin -
 - Six legs and three body parts: head, thorax and abdomen -
 - Most but not all insects have wings. -
- Life cycles: metamorphosis
 - Some insects look like miniature adults when born from eggs, and they molt to grow (examples: grasshopper, cricket).
 - Some insects go through distinct stages of egg, larva, pupa, adult (examples: butterflies, ants).



- Social insects
Most insects live solitary lives, but some are social (such as ants, honeybees, termites, wasps). -
Ants: colonies -
Honeybees: workers, drones, queen -

III. The Human Body

A. CELLS

- All living things are made up of cells, too small to be seen without a microscope.
Cells make up tissues.
Tissues make up organs.
Organs work in systems.

B. THE DIGESTIVE AND EXCRETORY SYSTEMS

Teachers: Explore with children what happens to the food we eat by studying body parts and functions involved in taking in food and getting rid of waste. Children should become familiar with the following:

- Salivary glands, taste buds
- Teeth: incisors, bicuspid, molars
- Esophagus, stomach, liver, small intestine, large intestine
- Kidneys, urine, bladder, urethra, anus, appendix

C. TAKING CARE OF YOUR BODY: A HEALTHY DIET

- The “food pyramid” or “MyPlate”
- Vitamins and minerals

IV. Magnetism

Teachers: Magnetism was introduced in kindergarten. Review and introduce new topics in second grade, with greater emphasis on experimentation.

- Magnetism demonstrates that there are forces we cannot see that act upon objects.
- Most magnets contain iron.
- Lodestones: naturally occurring magnets
- Magnetic poles: north-seeking and south-seeking poles
- Magnetic field (strongest at the poles)
- Law of magnetic attraction: unlike poles attract, like poles repel
- The earth behaves as if it were a huge magnet: north and south magnetic poles (near, but not the same as, geographic North Pole and South Pole)
- Orienteering: use of a magnetized needle in a compass, which will always point to the north

V. Simple Machines

Teachers: Examine with children how specific tools are made to perform specific jobs—for example, hammers, screwdrivers, pliers, etc. Through observation and experimentation, examine with children how simple machines help make work easier, and how they are applied and combined in familiar tools and machines.

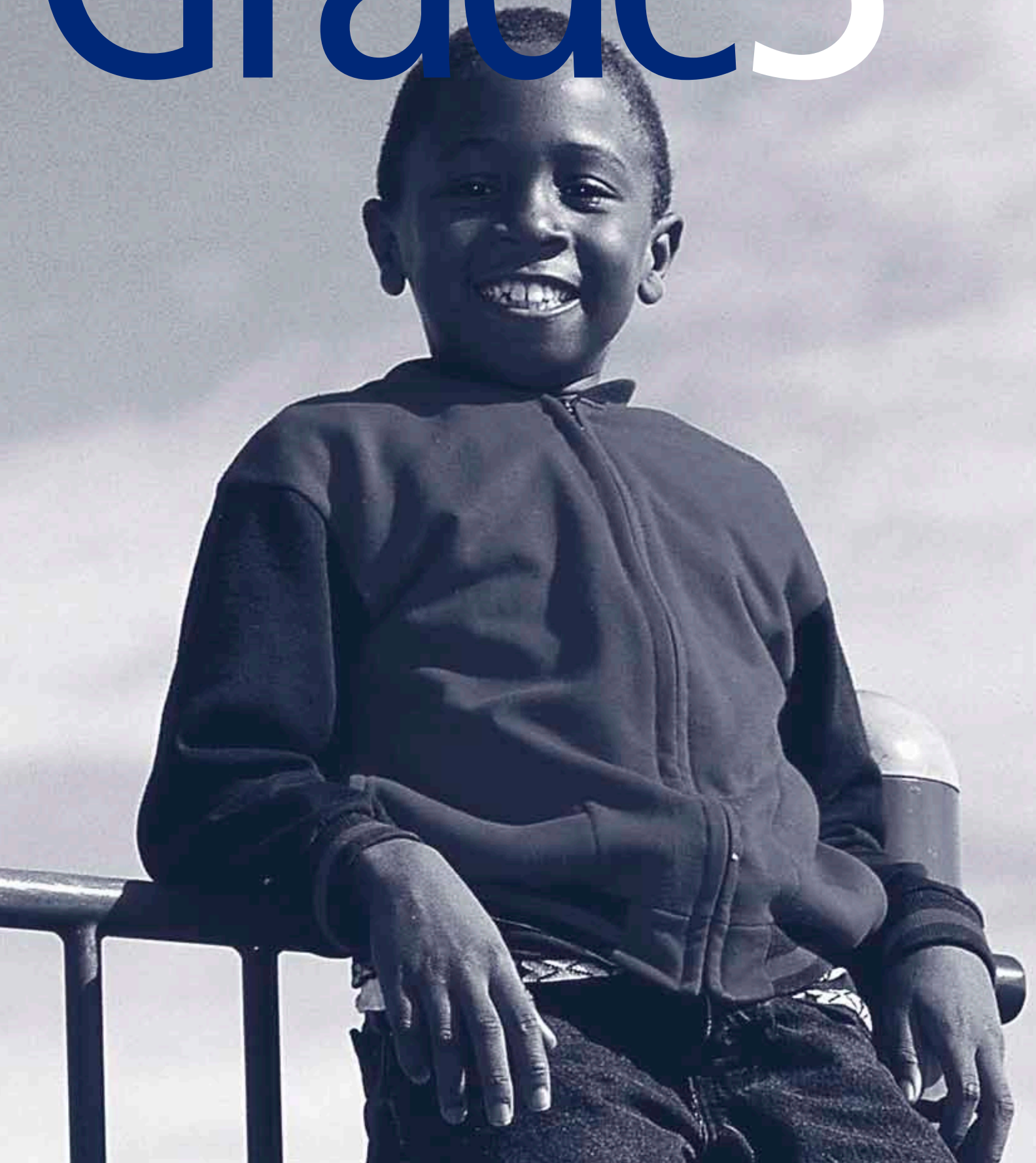
- Simple machines -
 - lever -
 - pulley -
 - wheel-and-axle -
 - gears: wheels with teeth and notches
 - how gears work, and familiar uses (for example, in bicycles)
 - inclined plane
 - wedge
 - screw
- Friction, and ways to reduce friction (lubricants, rollers, etc.)

VI. Science Biographies

See above, Human Body:
Cells re Anton van
Leeuwenhoek; Simple
Machines: Friction, re Elijah
McCoy.

Anton van Leeuwenhoek (invented the microscope)
Elijah McCoy (invented the automatic lubricator/the real McCoy)
Florence Nightingale (helped the wounded in the Crimean War/made hospitals more
sanitary)
Daniel Hale Williams (performed the first open-chest surgery)

Grade3



Overview of Topics

Grade 3

Language Arts

- I. Reading and Writing
 - A. Reading Comprehension and Response
 - B. Writing
 - C. Spelling, Grammar, and Usage
 - D. Vocabulary
- II. Poetry
- III. Fiction
 - A. Stories
 - B. Myths and Mythical Characters
 - C. Literary Terms
- IV. Sayings and Phrases

History and Geography

World:

- I. World Geography
 - A. Spatial Sense
 - B. Geographical Terms and Features
 - C. Canada
 - D. Important Rivers of the World
- II. The Ancient Roman Civilization
 - A. Geography of the Mediterranean Region
 - B. Background
 - C. The Empire
 - D. The "Decline and Fall" of Rome
 - E. The Eastern Roman Empire: Byzantine Civilization
- III. The Vikings

American:

- I. The Earliest Americans
 - A. Crossing from Asia to North America
 - B. Native Americans
- II. Early Exploration of North America
 - A. Early Spanish Exploration and Settlement
 - B. Exploration and Settlement of the American Southwest
 - C. The Search for the Northwest Passage
- III. The Thirteen Colonies: Life and Times Before the Revolution
 - A. Geography
 - B. Southern Colonies
 - C. New England Colonies
 - D. Middle Atlantic Colonies

Visual Arts

- I. Elements of Art
 - A. Light
 - B. Space in Artworks
 - C. Design: How the Elements of Art Work Together
- II. American Indian Art
- III. Art of Ancient Rome and Byzantine Civilization

Music

- I. Elements of Music
- II. Listening and Understanding
 - A. The Orchestra
 - B. Composers and Their Music
 - C. Musical Connections
- III. Songs

Mathematics

- I. Numbers and Number Sense
- II. Fractions and Decimals
- III. Money
- IV. Computation
 - A. Addition
 - B. Subtraction
 - C. Multiplication
 - D. Division
 - E. Solving Problems and Equations
- V. Measurement
 - A. Linear Measure
 - B. Weight
 - C. Capacity (Volume)
 - D. Temperature
 - E. Time
- VI. Geometry

Science

- I. Introduction to Classification of Animals
- II. The Human Body
 - A. The Muscular System
 - B. The Skeletal System
 - C. The Nervous System
 - D. Vision: How the Eye Works
 - E. Hearing: How the Ear Works
- III. Light and Optics
- IV. Sound
- V. Ecology
- VI. Astronomy
- VII. Science Biographies

Language Arts: Grade 3

The *Common Core State Standards for English Language Arts* emphasize the critical importance of building nonfiction background knowledge in a coherent and sequenced way within and across grades. This can be accomplished most effectively, at each grade level, by integrating the topics from history, geography, science, and the arts in the *Core Knowledge Sequence* into the language arts block. Note that in the *Sequence*, there are many cross-curricular connections to history and science topics within Language Arts (e.g., poems, stories, and sayings), as well as to visual arts and music, which can and should be integrated into the applicable domain of study.

For Grade 3, domains include: The Ancient Roman Civilization; The Vikings; The Earliest Americans; Early Exploration of North America; The Thirteen Colonies: Life and Times Before the Revolution; Introduction to Classification of Animals; The Human Body; Light and Optics; Sound; Ecology; Astronomy.

NOTE: The objectives listed in **I. Reading and Writing** are currently under revision, as part of the *Core Knowledge Language Arts* program development for Grades 3–5. The revised Grade 3 goals and objectives will be conceptually consistent with the K–2 language arts sections of the 2010 edition of the *Sequence* and will be posted at www.coreknowledge.org as part of the online *Sequence* as soon as they are available.

I. Reading and Writing

Teachers: Many of the following sub-goals are designed to help children achieve the overall goal for reading in third grade: to be able to read (both aloud and silently), with fluency, accuracy, and comprehension any story or other text appropriately written for third grade. Such texts include Beverly Cleary's *Ramona* books, Laura Ingalls Wilder's *Little House in the Big Woods*, and third-grade-level volumes in such nonfiction series as *Let's Read and Find Out* and *New True Books*.

In third grade, children should be competent decoders of most one- and two-syllable words, and they should become increasingly able to use their knowledge of phonemes, syllable boundaries, and prefixes and suffixes to decode multisyllable words. Systematic attention to decoding skills should be provided as needed for children who have not achieved the goals specified for grades 1 and 2.

A. READING COMPREHENSION AND RESPONSE

- Independently read and comprehend longer works of fiction ("chapter books") and nonfiction appropriately written for third grade or beyond.
- Point to specific words or passages that are causing difficulties in comprehension.
- Orally summarize main points from fiction and nonfiction readings.
- Ask and pose plausible answers to how, why, and what-if questions in interpreting texts, both fiction and nonfiction.
- Use a dictionary to answer questions regarding meaning and usage of words with which he or she is unfamiliar.
- Know how to use a table of contents and index to locate information.

B. WRITING

Teachers: Children should be given many opportunities for writing, both imaginative and expository, with teacher guidance that strikes a balance between encouraging creativity and requiring correct use of conventions. The following guidelines build on the second grade guidelines: please refer to them and provide review and reinforcement as necessary to ensure mastery.

Note: Children should read outside of school at least 20 minutes daily.

- Produce a variety of types of writing—such as stories, reports, poems, letters, descriptions—and make reasonable judgments about what to include in his or her own written works based on the purpose and type of composition.
- Know how to gather information from basic print sources (such as a children’s encyclopedia), and write a short report presenting the information in his or her own words.
- Know how to use established conventions when writing a friendly letter: heading, salutation (greeting), closing, signature.
- Produce written work with a beginning, middle, and end.
- Organize material in paragraphs and understand -
how to use a topic sentence -
how to develop a paragraph with examples and details -
that each new paragraph is indented -
- In some writings, proceed with guidance through a process of gathering information, organizing thoughts, composing a draft, revising to clarify and refine his or her meaning, and proofreading with attention to spelling, mechanics, and presentation of a final draft.

Note: Review from grade 2: capital letters for the first word of a sentence; proper nouns; the pronoun “I”; holidays and months and days of the week; names of countries, cities, states; main words in titles; initials.

Note: Review and reinforce from grade 2: singular and plural nouns; making words plural with /s/ or /es/; irregular plurals; correct usage of irregular verbs (*be*, *have*, *do*, *go*, *come*, etc.); regular past tense with -ed and past tense of irregular verbs.

Note: Children should know that a *possessive* noun shows ownership.

Note: Teach only words that can be clearly analyzed into prefix and base word; for example, do not teach “discover” or “display” as prefixed words.

C. SPELLING, GRAMMAR, AND USAGE

- Spell most words correctly or with a highly probable spelling, and use a dictionary to check and correct spellings about which he or she is uncertain.
- Use capital letters correctly.
- Understand what a complete sentence is, and -
identify subject and predicate in single-clause sentences -
distinguish complete sentences from fragments -
- Identify and use different sentence types: -
declarative (makes a statement) -
interrogative (asks a question) -
imperative (gives a command) -
exclamatory (for example, “What a hit!”) -
- Know the following parts of speech and how they are used: -
nouns (for concrete nouns) -
pronouns (singular and plural) -
verbs: action verbs and auxiliary (helping) verbs -
adjectives (including articles: *a* before a consonant, *an* before a vowel, and *the*) -
adverbs -
- Know how to use the following punctuation:
end punctuation: period, question mark, or exclamation point
comma: between day and year when writing a date; between city and state in an address; in a series; after *yes* and *no*
apostrophe: in contractions; in singular and plural possessive nouns -
- Recognize and avoid the double negative.

D. VOCABULARY

- Know what prefixes and suffixes are and how the following affect word meaning:
Prefixes:
re meaning “again” (as in reuse, refill)
un meaning “not” (as in unfriendly, unpleasant)
dis meaning “not” (as in dishonest, disobey)
un meaning “opposite of” or “reversing an action” (as in untie, unlock)
dis meaning “opposite of” or “reversing an action” (as in disappear, dismount)
Suffixes: -
er and *or* (as in singer, painter, actor) -
less (as in careless, hopeless) -
ly (as in quickly, calmly) -

Note: Review synonyms and antonyms.

- Know what homophones are (for example, by, buy; hole, whole) and correct usage of homophones that commonly cause problems: -
 their, there, they're -
 your, you're -
 its, it's -
 here, hear -
 to, too, two -
- Recognize common abbreviations (for example, St., Rd., Mr., Mrs., Ms., Dr., U.S.A., ft., in., lb.).

II. Poetry

Teachers: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose children to more poetry, old and new, and to have children write their own poems. To bring children into the spirit of poetry, read it aloud and encourage them to read it aloud so they can experience the music in the words. At this grade, poetry should be a source of delight; technical analysis should be delayed until later grades.

Adventures of Isabel (Ogden Nash) -
 The Bee (Isaac Watts; see also below, "The Crocodile") -
 By Myself (Eloise Greenfield) -
 Catch a Little Rhyme (Eve Merriam) -
 The Crocodile (Lewis Carroll) -
 Dream Variations (Langston Hughes) -
 Eletelephony (Laura Richards) -
 Father William (Lewis Carroll) -
 First Thanksgiving of All (Nancy Byrd Turner) -
 For want of a nail, the shoe was lost . . . (traditional) -
 Jimmy Jet and His TV Set (Shel Silverstein) -
 Knoxville, Tennessee (Nikki Giovanni) -
 Trees (Sergeant Joyce Kilmer) -

III. Fiction

Teachers: The titles here constitute a selected core of stories for this grade. Expose children to many more stories, and encourage children to write their own stories. Children should also be exposed to nonfiction prose: biographies, books about science and history, books on art and music, etc. Also, engage children in dramatic activities, possibly with one of the stories below in the form of a play. Some of the following works, such as *Alice in Wonderland* and *The Wind in the Willows*, lend themselves to reading aloud to children.

A. STORIES

Alice in Wonderland (Lewis Carroll)
 from *The Arabian Nights*:
 Aladdin and the Wonderful Lamp
 Ali Baba and the Forty Thieves
 The Hunting of the Great Bear (an Iroquois legend about the origin of the Big Dipper)
 The Husband Who Was to Mind the House (a Norse/English folktale, also known as "Gone is Gone")
 The Little Match Girl (Hans Christian Andersen)
 The People Could Fly (an African American folktale)
 Three Words of Wisdom (a folktale from Mexico)
 William Tell
 selections from *The Wind in the Willows*: "The River Bank" and
 "The Open Road" (Kenneth Grahame)

See also American History 3:
 Slavery in the Colonies, re
 "The People Who Could Fly."

See also World History 3:
Vikings.

See also World History 3,
Ancient Rome.

B. MYTHS AND MYTHICAL CHARACTERS

- Norse Mythology
 - Asgard (home of the gods)
 - Valhalla
 - Hel (underworld)
 - Odin
 - Thor
 - trolls
 - Norse gods and English names for days of the week: Tyr, Odin [Wodin], Thor, Frigg [Freya]
- More Myths and Legends of Ancient Greece and Rome
 - Jason and the Golden Fleece
 - Perseus and Medusa
 - Cupid and Psyche
 - The Sword of Damocles
 - Damon and Pythias
 - Androcles and the Lion
 - Horatius at the Bridge

C. LITERARY TERMS

biography and autobiography
fiction and nonfiction

IV. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

Actions speak louder than words. -
His bark is worse than his bite. -
Beat around the bush -
Beggars can't be choosers. -
Clean bill of health -
Cold shoulder -
A feather in your cap -
Last straw -
Let bygones be bygones. -
One rotten apple spoils the whole barrel. -
On its last legs -
Rule the roost -
The show must go on. -
Touch and go -
When in Rome do as the Romans do. -
Rome wasn't built in a day. -

History and Geography: Grade 3

WORLD HISTORY AND GEOGRAPHY

I. World Geography

Teachers: The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge includes a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures.

A. SPATIAL SENSE (Working with Maps, Globes, and Other Geographic Tools)

Teachers: Review and reinforce earlier topics, and add new topics as follows:

- Name your continent, country, state, and community.
- Understand that maps have keys or legends with symbols and their uses.
- Find directions on a map: east, west, north, south.
- Identify major oceans: Pacific, Atlantic, Indian, Arctic.
- The seven continents: Asia, Europe, Africa, North America, South America, Antarctica, Australia
- Locate: Canada, United States, Mexico, Central America.
- Locate: the Equator, Northern Hemisphere and Southern Hemisphere, North and South Poles.
- Measure straight-line distances using a bar scale.
- Use an atlas and, if available, on-line sources to find geographic information.

B. GEOGRAPHICAL TERMS AND FEATURES

Teachers: Review terms from grade 1 (peninsula, harbor, bay, island) and grade 2 (coast, valley, desert, oasis, prairie), and add:

- boundary, channel, delta, isthmus, plateau, reservoir, strait

C. CANADA

- Locate in relation to United States
- French and British heritage, French-speaking Quebec
- Rocky Mountains
- Hudson Bay, St. Lawrence River, Yukon River
- Divided into provinces
- Major cities, including Montreal, Quebec, Toronto, Vancouver

D. IMPORTANT RIVERS OF THE WORLD

- Terms: source, mouth, tributary, drainage basin
- Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus, Tigris, Euphrates
- Africa: Nile, Niger, Congo
- South America: Amazon, Parana, Orinoco
- North America: Mississippi and major tributaries, Mackenzie, Yukon
- Australia: Murray-Darling
- Europe: Volga, Danube, Rhine

See also below,
American History and
Geography II.C: Search for
the Northwest Passage.

II. The Ancient Roman Civilization

Teachers: Students will study Rome again in grade 6, with a focus on the legacy of ideas from ancient Greece and Rome.

A. GEOGRAPHY OF THE MEDITERRANEAN REGION

- Mediterranean Sea, Aegean Sea, Adriatic Sea
- Greece, Italy (peninsula), France, Spain
- Strait of Gibraltar, Atlantic Ocean
- North Africa, Asia Minor (peninsula), Turkey
- Bosphorus (strait), Black Sea, Istanbul (Constantinople)
- Red Sea, Persian Gulf, Indian Ocean

B. BACKGROUND

- Define B.C. / A.D. and B.C.E. / C.E.
- The legend of Romulus and Remus
- Latin as the language of Rome
- Worship of gods and goddesses, largely based on Greek religion
- The Republic: Senate, Patricians, Plebeians
- Punic Wars: Carthage, Hannibal

C. THE EMPIRE

- Julius Caesar -
 - Defeats Pompey in civil war, becomes dictator -
 - “Veni, vidi, vici” (“I came, I saw, I conquered”) -
 - Cleopatra of Egypt -
 - Caesar assassinated in the Senate, Brutus -
- Augustus Caesar
- Life in the Roman Empire -
 - The Forum: temples, marketplaces, etc. -
 - The Colosseum: circuses, gladiator combat, chariot races -
 - Roads, bridges, and aqueducts -
- Eruption of Mt. Vesuvius, destruction of Pompeii
- Persecution of Christians

D. THE “DECLINE AND FALL” OF ROME

- Weak and corrupt emperors, legend of Nero fiddling as Rome burns
- Civil wars
- City of Rome sacked
- Social and moral decay

E. THE EASTERN ROMAN EMPIRE: BYZANTINE CIVILIZATION

- The rise of the Eastern Roman Empire, known as the Byzantine Empire
- Constantine, emperor who made Christianity the official religion of Rome
- Constantinople (now called Istanbul) merges diverse influences and cultures.
- Justinian, Justinian’s Code

See also Language Arts 3:
More Myths and Legends of
Ancient Greece and Rome.

See also Visual Arts 3:
Art of Ancient Rome and
Byzantine Civilization.

III. The Vikings

- From area now called Scandinavia (Sweden, Denmark, Norway)
- Also called Norsemen, they were skilled sailors and shipbuilders.
- Traders, and sometimes raiders of the European coast
- Eric the Red and Leif Ericson (Leif “the Lucky”)
- Earliest Europeans (long before Columbus) we know of to come to North America
 - Locate: Greenland, Canada, Newfoundland

See also Language Arts 3:
Norse Myths.

American History and Geography



See also Language Arts 3:
"The Hunting of the Great
Bear" (an Iroquois legend).

AMERICAN HISTORY AND GEOGRAPHY

Teachers: In third grade, students begin a more detailed and in-depth chronological investigation of topics, some of which have been introduced in grades K–2. Specific topics include: the early exploration of North America; ways of life of specific Native American peoples; life in colonial America before the Revolution. Use of timelines is encouraged. The following guidelines are meant to complement any locally required studies of the family, community, or region. Note that in fifth grade the American Geography requirements include "fifty states and capitals"; teachers in grades two through four may want to introduce these incrementally to prepare for the fifth grade requirement.

I. The Earliest Americans

A. CROSSING FROM ASIA TO NORTH AMERICA

- During the Ice Age, nomadic hunters cross from Asia to North America (now the Bering Strait). (Crossing a land bridge is just one of many theories.) Different peoples, with different languages and ways of life, eventually spread out over the North and South American continents. These early peoples include:
 - Inuits (Eskimos) -
 - Anasazi, pueblo builders and cliff dwellers -
 - Mound builders -

B. NATIVE AMERICANS

- In the Southwest -
 - Pueblos (Hopi, Zuni) -
 - Dine (Navajo) -
 - Apaches -
- Eastern "Woodland" Indians
 - Woodland culture: wigwams, longhouses, farming, peace pipe, Shaman and Sachem
 - Major tribes and nations (such as Powhatan, Delaware, Susquehanna, Mohican, Massachusetts, Iroquois Confederacy)
- In the Southeast -
 - Cherokee -
 - Seminole -

II. Early Exploration of North America

Teachers: In fifth grade, students will examine European exploration in a more global context. Third grade teachers should look ahead to the fifth grade World History guidelines (under "European Exploration, Trade, and the Clash of Cultures") to see how the topics introduced here will be developed and extended later. It is recommended that third grade teachers keep their focus on the explorers and events specified here, and leave for fifth grade the figures and ideas specified for that grade.

A. EARLY SPANISH EXPLORATION AND SETTLEMENT

- Settlement of Florida
- Ponce de Leon, legend of the Fountain of Youth
- Hernando de Soto
- Founding of St. Augustine (oldest continuous European settlement in what is now the U.S.)
- Geography: Caribbean Sea, West Indies, Puerto Rico, Cuba, Gulf of Mexico, Mississippi River

Note: Students may also be interested to learn about Amerigo Vespucci, the unlikely source of our country's name.

B. EXPLORATION AND SETTLEMENT OF THE AMERICAN SOUTHWEST

- Early Spanish explorers in the lands that are now the states of Texas, New Mexico, Arizona, and California; missionary settlements (missions), especially in Texas and California
- Coronado and the legend of the “Seven Cities of Cibola” (of Gold)
- Geography: Grand Canyon and Rio Grande
- Conflicts between the Spanish and the Pueblos (1680 revolt led by Popé)

C. THE SEARCH FOR THE NORTHWEST PASSAGE

- Many explorers undertook the perilous, sometimes fatal, voyage to find a short cut across North America to Asia, including: -
John Cabot: Newfoundland -
Champlain: “New France” and Quebec -
Henry Hudson: the Hudson River -
- Geography -
“New France” and Quebec -
Canada, St. Lawrence River -
The Great Lakes: Superior, Michigan, Huron, Erie, Ontario -

III. The Thirteen Colonies: Life and Times Before the Revolution

Teachers: Discuss with children the definition of “colony” and why countries establish colonies. Help children see that the thirteen English colonies were not alike. Different groups of people came to America with different motivations (hoping to get rich, looking for religious freedom, etc.), and the thirteen colonies developed in different ways.

A. GEOGRAPHY

- The thirteen colonies by region: New England, Middle Atlantic, Southern
- Differences in climate from north to south: corresponding differences in agriculture (subsistence farming in New England, gradual development of large plantations in the South)
- Important cities in the development of trade and government: Philadelphia, Boston, New York, Charleston

B. SOUTHERN COLONIES

- Southern colonies: Virginia, Maryland, North Carolina, South Carolina, Georgia
- Virginia
Chesapeake Bay, James River
1607: three ships of the London Company (later called the Virginia Company) arrive in Virginia, seeking gold and other riches
Establishment of Jamestown, first continuous English colony in the New World
Trade with Powhatan Indians (see also Eastern Woodland Indians, above)
John Smith
Pocahontas, marriage to John Rolfe
Diseases kill many people, both colonists and Indians
The Starving Time
Clashes between American Indians and English colonists
Development of tobacco as a cash crop, development of plantations
1619: first African laborers brought to Virginia
- Maryland -
A colony established mainly as a refuge for Catholics -
Lord Baltimore -
- South Carolina -
Charleston -
Plantations (rice, indigo) and slave labor -

Note: The question of fact vs. legend regarding the rescue of John Smith by Pocahontas presents a good opportunity to explore what historians know and how they seek to learn about the past.

See also Language Arts 3:
 “The People Who Could Fly”
 re slavery in the colonies.

- Georgia
 James Oglethorpe’s plan to establish a colony for English debtors
- Slavery in the Southern colonies
 Economic reasons that the Southern colonies came to rely on slavery (for example,
 slave labor on large plantations)
 The difference between indentured servants and slaves: slaves as property
 The Middle Passage

C. NEW ENGLAND COLONIES

- New England colonies: Massachusetts, New Hampshire, Connecticut, Rhode Island
- Gradual development of maritime economy: fishing and shipbuilding
- Massachusetts
 Colonists seeking religious freedom: in England, an official “established” church (the
 Church of England), which did not allow people to worship as they chose
 The Pilgrims
 From England to Holland to Massachusetts
 1620: Voyage of the Mayflower
 Significance of the Mayflower Compact
 Plymouth, William Bradford
 Helped by Wampanoag Indians: Massasoit, Tisquantum (Squanto)
 The Puritans
 Massachusetts Bay Colony, Governor John Winthrop: “We shall be as
 a city upon a hill.”
 Emphasis on reading and education, the *New England Primer*
- Rhode Island
 Roger Williams: belief in religious toleration
 Anne Hutchinson

D. MIDDLE ATLANTIC COLONIES

- Middle Atlantic colonies: New York, New Jersey, Delaware, Pennsylvania
- New York
 Dutch settlements and trading posts in “New Netherland”
 Dutch West India Company acquires Manhattan Island and Long Island through
 a (probably misunderstood) purchase from the Indians; Dutch establish New
 Amsterdam (today, New York City)
 English take over from the Dutch, and rename the colony New York
- Pennsylvania
 William Penn
 Society of Friends, “Quakers”
 Philadelphia

Note: In fifth grade,
 students will explore the
 social changes that led to
 the Protestant Reformation.

Visual Arts: Grade 3

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

I. Elements of Art

Teachers: The generally recognized elements of art include line, shape, form, space, light, texture, and color. In third grade, build on what the children have learned in earlier grades as you introduce concepts of light, space, and design.

A. LIGHT

- Observe how artists use light and shadow (to focus our attention, affect our emotions, etc.) in -
James Chapin, *Ruby Green Singing*
Jan Vermeer, *Milkmaid*

B. SPACE IN ARTWORKS

- Understand the following terms: two-dimensional (height, width) and three-dimensional (height, width, depth)
- Observe relationship between two-dimensional and three-dimensional shapes: square to cube, triangle to pyramid, circle to sphere and cylinder
- Observe how artists can make two-dimensional look three-dimensional by creating an illusion of depth, and examine the foreground, middle ground, and background in paintings, including
Jean Millet, *The Gleaners*
Pieter Bruegel, *Peasant Wedding*

C. DESIGN: HOW THE ELEMENTS OF ART WORK TOGETHER

- Become familiar with how these terms are used in discussing works of art:
Figure and ground
Pattern
Balance and symmetry
- Examine design—how the elements of art work together—in -
Rosa Bonheur, *The Horse Fair*
Mary Cassatt, *The Bath*
Early American quilts -
Edward Hicks, *The Peaceable Kingdom*
Henri Matisse, cut-outs: *Icarus*
Edvard Munch, *The Scream*
Horace Pippin, *Victorian Interior*
Faith Ringgold, *Tar Beach*

Note: Students will take a more detailed look at perspective in grade 5.

See also American History 3: Colonial America, re Early American quilts and *The Peaceable Kingdom*.

II. American Indian Art

Teachers: The works of art specified below are associated with the Southwest and Eastern Woodland Indians studied in third grade, thus other works of art, such as totem poles, are not listed here because they would be more appropriately examined when students are introduced to the Pacific Northwest Indians. Students should be made aware of the spiritual purposes and significance of many American Indian works of art.

- Become familiar with American Indian works, including -
Kachina dolls (Hopi, Zuni) -
Navajo (Dine) blankets and rugs, sand paintings -
Jewelry -

III. Art of Ancient Rome and Byzantine Civilization

Teachers: The works of art listed here may be introduced as part of your study of ancient Roman civilization; see *World History Grade 3*.

- Become familiar with artworks of ancient Roman and Byzantine civilization, including
Le Pont du Gard
The Pantheon
Byzantine mosaics
Hagia Sophia









Music: Grade 3

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.

The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).

I. Elements of Music

- Through participation, become familiar with basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
 - Recognize a steady beat, accents, and the downbeat; play a steady beat.
 - Move responsively to music.
 - Recognize short and long sounds.
 - Discriminate between fast and slow; gradually slowing down and getting faster.
 - Discriminate between differences in pitch: high and low.
 - Discriminate between loud and soft; gradually increasing and decreasing volume.
 - Understand that melody can move up and down.
 - Hum the melody while listening to music.
 - Echo short rhythms and melodic patterns.
 - Play simple rhythms and melodies.
 - Sing unaccompanied, accompanied, and in unison.
 - Recognize harmony; sing rounds.
 - Recognize verse and refrain.
 - Continue work with timbre and phrasing.
 - Review names of musical notes; scale as a series of notes; singing the C major scale using “do re mi” etc.
- Understand the following notation
 - names of lines and spaces in the treble clef
 -  treble clef,  staff, bar line, double bar line, measure, repeat signs
 -  whole note  half note  quarter note  eighth note
 - whole rest, half rest, quarter rest
 - meter signature: $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$
 - soft *p* *pp* loud *f* *ff*

II. Listening and Understanding

Teachers: Expose children to a wide range of music, including children’s music, popular instrumental music, and music from various cultures.

A. THE ORCHESTRA

- Review families of instruments: strings, brass, woodwinds, percussion.
- Become familiar with brass instruments—trumpet, French horn, trombone, tuba—and listen to
 - Gioacchino Rossini, *William Tell Overture*, finale (trumpet)
 - Wolfgang Amadeus Mozart, selections from the *Horn Concertos* (French horn)

See also below, re brass instruments, Composers and Their Music: Aaron Copland’s *Fanfare for the Common Man*, and John Philip Sousa, *Stars and Stripes Forever*. See also Language Arts 3: William Tell.

Note: When you explore woodwinds with children, you may also want to recall Prokofiev's *Peter and the Wolf*: the duck's theme (oboe), cat's theme (clarinet), bird's theme (flute), and Grandfather's theme (bassoon).

See below, Songs, "Simple Gifts."

See also Language Arts 3: Tales from "The Arabian Nights" re *Scheherazade*. Also, re Norse mythology, you may want to introduce Wagner's "The Ride of the Valkyries."

Note: Review from earlier grades "America the Beautiful" and "The Star-Spangled Banner."

- Become familiar with woodwind instruments—flute and piccolo (no reeds); clarinet, oboe, bassoon (with reeds)—and listen to -
 Claude Debussy, *Prelude to the Afternoon of a Faun* (flute) -
 Opening of George Gershwin's *Rhapsody in Blue* (clarinet) -

B. COMPOSERS AND THEIR MUSIC

Teachers: Provide brief, child-friendly biographical profiles of the following composers, and listen to representative works:

- Peter Ilich Tchaikovsky, *Suite from Swan Lake*
- John Philip Sousa, *Stars and Stripes Forever*
- Aaron Copland, *Fanfare for the Common Man*; "Hoedown" from *Rodeo*, "Simple Gifts" from *Appalachian Spring*

C. MUSICAL CONNECTIONS

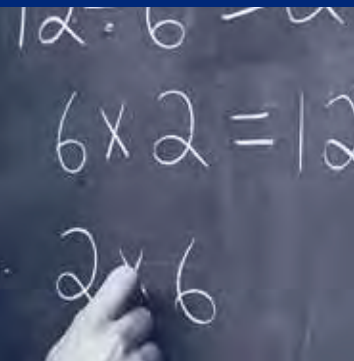
Teachers: Introduce children to the following in connection with topics in other disciplines:

- Nikolai Rimsky-Korsakov, *Scheherazade*, part one: "The Sea and Sinbad's Ship"

III. Songs

Alouette -
 America ("My country, 'tis of thee") -
 A Bicycle Built for Two (chorus only) -
 Down in the Valley -
 He's Got the Whole World in His Hands -
 Hey, Ho, Nobody Home (round) -
 In the Good Old Summertime (chorus only) -
 Li'l Liza Jane -
 My Bonnie Lies Over the Ocean -
 Polly Wolly Doodle -
 The Man on the Flying Trapeze (chorus only) -
 The Sidewalks of New York (chorus only) -
 Simple Gifts ("Tis a gift to be simple") -
 This Little Light of Mine -
 You're a Grand Old Flag -

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving “higher order” skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.



I. Numbers and Number Sense

- Read and write numbers (in digits and words) up to six digits.
- Recognize place value up to hundred thousands.
- Order and compare numbers to 999,999, using the signs $<$, $>$, and $=$.
- Count by twos, threes, fives, and tens; count by tens from any given number.
- Write numbers in expanded form.
- Use a number line.
- Identify ordinal position, 1st to 100th.
- Review: even and odd numbers; dozen; half-dozen; pair.
- Round to the nearest ten; to the nearest hundred.
- Identify perfect squares (and square roots) to 100, and recognize the square root sign: $\sqrt{\quad}$
- Identify Roman numerals from 1 to 20 (I - XX).
- Understand what negative numbers are in relation to familiar uses (such as temperatures below zero).
- Locate positive and negative whole numbers on a number line.
- Create and interpret bar graphs and line graphs.
- Record outcomes for a simple event (for example, tossing a die) and display the - results graphically. -

II. Fractions and Decimals

- Recognize fractions to $\frac{1}{10}$ and fractions whose denominator is 100.
- Identify numerator and denominator.
- Write mixed numbers.
- Recognize equivalent fractions (for example, $\frac{1}{2} = \frac{3}{6}$).
- Compare fractions with like denominators, using the signs $<$, $>$, and $=$.
- Know and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.
- Read and write decimals to the hundredths.

III. Money

- Write amounts of money using \$ and ¢ signs, and the decimal point.
- Make change, using as few coins as possible.
- Add and subtract amounts of money.
- Multiply and divide amounts of money by small whole numbers.

IV. Computation

Teachers: Children should know their basic addition and subtraction facts; review and reinforce as necessary to ensure mastery.

A. ADDITION

- Review and practice basic addition facts.
- Mentally estimate a sum.
- Use mental computation strategies.
- Addition with and without regrouping: find the sum (up to 10,000) of any two whole numbers.

B. SUBTRACTION

- Understand addition and subtraction as inverse operations; use addition to check subtraction.
- Review and practice basic subtraction facts.
- Mentally estimate the difference.
- Use mental computation strategies.
- Subtraction with and without regrouping: given two whole numbers of 10,000 or less, find the difference.

C. MULTIPLICATION

- Master basic multiplication facts to 10×10 .
- Mentally multiply, by 10, 100, and 1,000.
- Multiply two whole numbers, with and without regrouping, in which one factor is 9 or less and the other is a multi-digit number up to three digits.
- Write numbers in expanded form using multiplication, for example: $9,278 = (9 \times 1,000) + (2 \times 100) + (7 \times 10) + 8$.
- Estimate a product.
- Solve word problems involving multiplication.

D. DIVISION

- Understand multiplication and division as inverse operations.
- Know the meaning of dividend, divisor, and quotient.
- Know basic division facts to $100 \div 10$.
- Know that you cannot divide by 0.
- Know that any number divided by 1 = that number.
- Divide two- and three-digit dividends by one-digit divisors.
- Solve division problems with remainders.
- Check division by multiplying (and adding remainder).

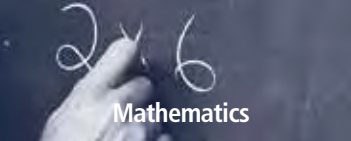
E. SOLVING PROBLEMS AND EQUATIONS

- Solve two-step word problems.
- Solve equations in the form of $__ \times 9 = 63$; $81 \div __ = 9$.
- Solve problems with more than one operation, as in $(43 - 32) \times (5 + 3) = __$.
- Read and write expressions that use parentheses to indicate order of multiple operations.

V. Measurement

A. LINEAR MEASURE

- Make linear measurements in yards, feet, and inches; and, in centimeters and meters.
- Know that one foot = 12 inches; one yard = 36 inches; 3 feet = 1 yard;
1 meter = 100 centimeters; 1 meter is a little more than one yard. -
- Measure and draw line segments in inches (to $\frac{1}{4}$ inch), and in centimeters.
- Estimate linear measurements, then measure to check estimates.



B. WEIGHT

- Compare weights of objects using a balance scale.
- Estimate and measure weight in pounds and ounces; grams and kilograms.
- Know abbreviations: lb., oz., g, kg

C. CAPACITY (VOLUME)

- Estimate and measure liquid capacity in cups, pints, quarts, gallons, and liters.
- Know that 1 quart = 2 pints; 1 gallon = 4 quarts.
- Compare U.S. and metric liquid volumes: quart and liter (one liter is a little more than one quart).

D. TEMPERATURE

- Measure and record temperature in degrees Fahrenheit and Celsius.
- Know the degree sign: $^{\circ}$
- Identify freezing point of water as $32^{\circ}\text{ F} = 0^{\circ}\text{ C}$.

E. TIME

- Read a clock face and tell time to the minute as either A.M. or P.M.; tell time in terms of both “minutes before” and “minutes after” the hour.
- Solve problems on elapsed time (how much time has passed?).
- Using a calendar, identify the date, day of the week, month, and year.
- Write the date using words (for name of month) and numbers, and only numbers.

VI. Geometry

- Identify lines as horizontal, vertical, perpendicular, or parallel.
- Name lines and line segments (for example, line AB; segment CD).
- Polygons: recognize vertex (plural: vertices); identify sides as line segments (for example, side CD); identify pentagon, hexagon, and octagon (regular).
- Identify angles by letter names (for example, \angle BC); identify a right angle; know that there are four right angles in a square or rectangle.
- Compute area in square inches (in^2) and square centimeters (cm^2).
- Recognize and draw congruent figures; identify a line of symmetry, and create symmetric figures.
- Identify solid figures: sphere, cube, rectangular solid, pyramid, cone, cylinder.



Teachers: Effective instruction in science requires hands-on experience and observation. In the words of the 1993 report from the American Association for the Advancement of Science, *Benchmarks for Science Literacy*, "From their very first day in school, students should be actively engaged in learning to view the world scientifically. That means encouraging them to ask questions about nature and to seek answers, collect things, count and measure things, make qualitative observations, organize collections and observations, discuss findings, etc."

While experience counts for much, book learning is also important, for it helps bring coherence and order to a child's scientific knowledge. Only when topics are presented systematically and clearly can children make steady and secure progress in their scientific learning. The child's development of scientific knowledge and understanding is in some ways a very disorderly and complex process, different for each child. But a systematic approach to the exploration of science, one that combines experience with book learning, can help provide essential building blocks for deeper understanding at a later time.

I. Introduction to Classification of Animals

- Scientists classify animals according to the characteristics they share, for example:
 - Cold-blooded or warm-blooded
 - Vertebrates (have backbones and internal skeletons) or invertebrates (do not have backbones or internal skeletons)
- Different classes of vertebrates

Teachers: Children should become familiar with examples of animals in each class and some basic characteristics of each class, such as:

Fish: aquatic animals, breathe through gills, cold-blooded, most have scales, most develop from eggs that the female lays outside her body

Amphibians: live part of their lives in water and part on land, have gills when young, later develop lungs, cold-blooded, usually have moist skin

Reptiles: hatch from eggs, cold-blooded, have dry, thick, scaly skin

Birds: warm-blooded, most can fly, have feathers and wings, most build nests, hatch from eggs, most baby birds must be fed by parents and cared for until they can survive on their own (though some, like baby chickens and quail, can search for food a few hours after hatching)

Mammals: warm-blooded, have hair on their bodies, parents care for the young, females produce milk for their babies, breathe through lungs, most are terrestrial (live on land) though some are aquatic

II. The Human Body

A. THE MUSCULAR SYSTEM

- Muscles -
 - Involuntary and voluntary muscles -

B. THE SKELETAL SYSTEM

- Skeleton, bones, marrow
- Musculo-skeletal connections -
 - Ligaments -
 - Tendons, Achilles tendon -
 - Cartilage -
- Skull, cranium
- Spinal column, vertebrae
- Joints
- Ribs, rib cage, sternum
- Scapula (shoulder blades), pelvis, tibia, fibula
- Broken bones, x-rays



C. THE NERVOUS SYSTEM

- Brain: medulla, cerebellum, cerebrum, cerebral cortex
- Spinal cord
- Nerves
- Reflexes

D. VISION: HOW THE EYE WORKS

- Parts of the eye: cornea, iris and pupil, lens, retina
- Optic nerve
- Farsighted and nearsighted

E. HEARING: HOW THE EAR WORKS

- Sound as vibration
- Outer ear, ear canal
- Eardrum
- Three tiny bones (hammer, anvil, and stirrup) pass vibrations to the cochlea
- Auditory nerve

III. Light and Optics

Teachers: Through experimentation and observation, introduce children to some of the basic physical phenomena of light, with associated vocabulary.

Note: Students will study light in more detail in grade 8.

- The speed of light: light travels at an amazingly high speed.
- Light travels in straight lines (as can be demonstrated by forming shadows).
- Transparent and opaque objects
- Reflection -
 - Mirrors: plane, concave, convex -
 - Uses of mirrors in telescopes and some microscopes -
- The spectrum: use a prism to demonstrate that white light is made up of a spectrum of colors.
- Lenses can be used for magnifying and bending light (as in magnifying glass, microscope, camera, telescope, binoculars).

IV. Sound

Teachers: Through experimentation and observation, introduce children to some of the basic physical phenomena of sound, with associated vocabulary.

Note: Students will study sound in more detail in grade 8.

- Sound is caused by an object vibrating rapidly.
- Sounds travel through solids, liquids, and gases.
- Sound waves are much slower than light waves.
- Qualities of sound
 - Pitch: high or low, faster vibrations = higher pitch, slower vibrations = lower pitch
 - Intensity: loudness and quietness
- Human voice
 - Larynx (voice box)
 - Vibrating vocal cords: longer, thicker vocal cords create lower, deeper voices
- Sound and how the human ear works
- Protecting your hearing

See above, II.E: Hearing.

V. Ecology

Teachers: Some topics here, such as habitats, were introduced in first grade. In this grade, develop in more detail, and explore new topics.

- Habitats, interdependence of organisms and their environment
- The concept of a “balance of nature” (constantly changing, not a static condition)
- The food chain or food web: producers, consumers, decomposers (Although the tendency is to recognize the limits of these models as well. See also Grade 1.)
- Ecosystems: how they can be affected by changes in environment (for example, rainfall, food supply, etc.), and by man-made changes
- Man-made threats to the environment -
 - Air pollution: emissions, smog -
 - Water pollution: industrial waste, run-off from farming -
- Measures we can take to protect the environment (for example, conservation, recycling)

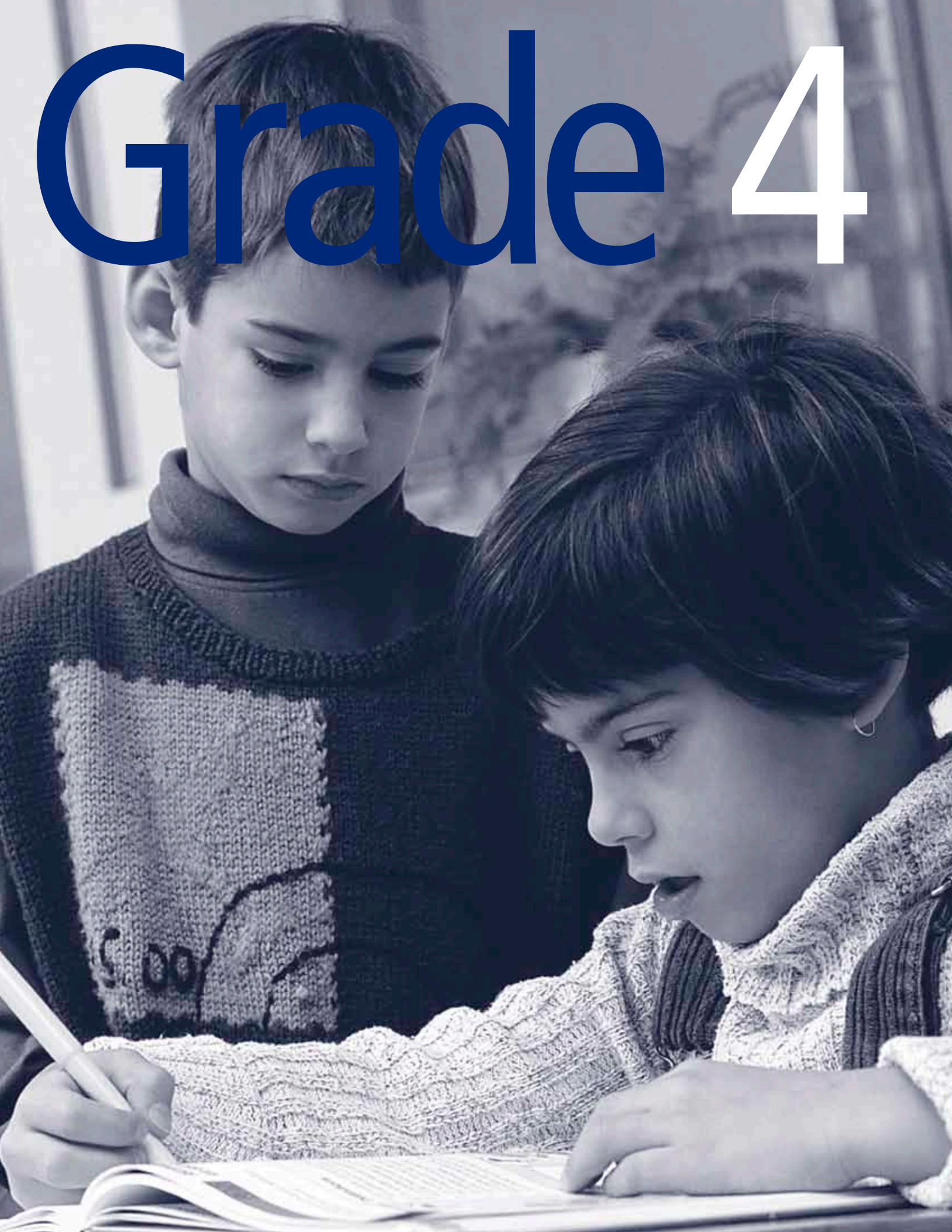
VI. Astronomy

- The “Big Bang” as one theory
- The universe: an extent almost beyond imagining
- Galaxies: Milky Way and Andromeda
- Our solar system
 - Sun: source of energy (heat and light)
 - The eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune
- Planetary motion: orbit and rotation
 - How day and night on earth are caused by the earth’s rotation
 - Sunrise in the east and sunset in the west
 - How the seasons are caused by the earth’s orbit around the sun, tilt of the earth’s axis
- Gravity, gravitational pull -
 - Gravitational pull of the moon (and to a lesser degree, the sun) causes ocean tides on earth
 - Gravitational pull of “black holes” prevents even light from escaping
- Asteroids, meteors (“shooting stars”), comets, Halley’s Comet
- How an eclipse happens
- Stars and constellations
- Orienteering (finding your way) by using North Star, Big Dipper
- Exploration of space
 - Observation through telescopes
 - Rockets and satellites: from unmanned to manned flights
 - Apollo 11, first landing on the moon: “One small step for a man, one giant leap for mankind.” -
 - Space shuttle -

VII. Science Biographies

See above, Sound, re
Alexander Graham Bell;
Astronomy, re Copernicus;
Exploration of Space, re
Mae Jemison; Ecology, re
John Muir.

Alexander Graham Bell (invented the telephone) -
Copernicus (had new sun-centered idea about the solar system) -
Mae Jemison (astronaut and medical pioneer) -
John Muir (conservationist who helped create many national parks) -



Grade 4

Overview of Topics

Grade 4

Language Arts

- I. Writing, Grammar, and Usage
 - A. Writing and Research
 - B. Grammar and Usage
- II. Poetry
 - A. Poems
 - B. Terms
- III. Fiction
 - A. Stories
 - B. Myths and Mythical Characters
 - C. Literary Terms
- IV. Speeches
- V. Sayings and Phrases

History and Geography

World:

- I. World Geography
 - A. Spatial Sense
 - B. Mountains and Mountain Ranges
- II. Europe in the Middle Ages
 - A. Geography Related to the Development of Western Europe
 - B. Background
 - C. Developments in History of the Christian Church
 - D. Feudalism
 - E. The Norman Conquest
 - F. Growth of Towns
 - G. England in the Middle Ages
- III. The Spread of Islam and the "Holy Wars"
 - A. Islam
 - B. Development of Islamic Civilization
 - C. Wars Between Muslims and Christians
- IV. Early and Medieval African Kingdoms
 - A. Geography of Africa
 - B. Early African Kingdoms
 - C. Medieval Kingdoms of the Sudan
- V. China: Dynasties and Conquerors

American:

- I. The American Revolution
 - A. Background: The French and Indian War
 - B. Causes and Provocations
 - C. The Revolution
- II. Making a Constitutional Government
 - A. Main Ideas Behind the Declaration of Independence
 - B. Making a New Government: From the Declaration to the Constitution
 - C. The Constitution of the United States
 - D. Levels and Functions of Government (National, State, Local)
- III. Early Presidents and Politics
- IV. Reformers
- V. Symbols and Figures

Visual Arts

- I. Art of the Middle Ages in Europe
- II. Islamic Art and Architecture
- III. The Art of Africa
- IV. The Art of China
- V. The Art of a New Nation: The United States

Music

- I. Elements of Music
- II. Listening and Understanding
 - A. The Orchestra
 - B. Vocal Ranges
 - C. Composers and Their Music
 - D. Musical Connections
- III. Songs

Mathematics

- I. Numbers and Number Sense
- II. Fractions and Decimals
 - A. Fractions
 - B. Decimals
- III. Money
- IV. Computation
 - A. Multiplication
 - B. Division
 - C. Solving Problems and Equations
- V. Measurement
- VI. Geometry

Science

- I. The Human Body
 - A. The Circulatory System
 - B. The Respiratory System
- II. Chemistry: Basic Terms and Concepts
 - A. Atoms
 - B. Properties of Matter
 - C. Elements
 - D. Solutions
- III. Electricity
- IV. Geology: The Earth and Its Changes
 - A. The Earth's Layers
 - B. How Mountains Are Formed
 - C. Rocks
 - D. Weathering and Erosion
- V. Meteorology
- VI. Science Biographies

Language Arts: Grade 4

The *Common Core State Standards for English Language Arts* emphasize the critical importance of building nonfiction background knowledge in a coherent and sequenced way within and across grades. This can be accomplished most effectively, at each grade level, by integrating the topics from history, geography, science, and the arts in the *Core Knowledge Sequence* into the language arts block. Note that in the *Sequence*, there are many cross-curricular connections to history and science topics within Language Arts (e.g., poems, stories, and sayings), as well as to visual arts and music, which can and should be integrated into the applicable domain of study.

For Grade 4, domains include: Europe in the Middle Ages; The Spread of Islam and the “Holy Wars”; Early and Medieval African Kingdoms; China: Dynasties and Conquerors; The American Revolution; Making a Constitutional Government; Early Presidents and Politics; Reformers; The Human Body; Chemistry: Basic Terms and Concepts; Electricity; Geology: The Earth and Its Changes; Meteorology.

NOTE: The objectives listed in **I. Writing, Grammar, and Usage** are currently under revision, as part of the *Core Knowledge Language Arts* program development for Grades 3–5. The revised Grade 4 goals and objectives will be conceptually consistent with the K–2 language arts sections of the 2010 edition of the *Sequence* and will be posted at www.coreknowledge.org as part of the online *Sequence* as soon as they are available.

I. Writing, Grammar, and Usage

Teachers: Children should be given many opportunities for writing, both imaginative and expository, but place a stronger emphasis than in previous grades on expository writing, including, for example, summaries, book reports, and descriptive essays. Provide guidance that strikes a balance between encouraging creativity and requiring correct use of conventions. Children should be given more responsibility for (and guidance in) editing for organization and development of ideas, and proofreading to correct errors in spelling, usage, and mechanics. In fourth grade, children should be able to spell most words or provide a highly probable spelling, and know how to use a dictionary to check and correct words that present difficulty. They should receive regular practice in vocabulary enrichment.

Note: Introduce fourth graders to the purpose of a bibliography, and have them prepare one that identifies basic publication information about the sources used, such as author, title, and date of publication.

A. WRITING AND RESEARCH

- Produce a variety of types of writing—including stories, reports, summaries, descriptions, poems, letters—with a coherent structure or story line.
- Know how to gather information from different sources (such as an encyclopedia, magazines, interviews, observations, atlas, on-line), and write short reports presenting the information in his or her own words, with attention to the following:
 - understanding the purpose and audience of the writing -
 - defining a main idea and sticking to it -
 - providing an introduction and conclusion -
 - organizing material in coherent paragraphs -
 - documenting sources in a rudimentary bibliography -
- Organize material in paragraphs and understand -
 - how to use a topic sentence -
 - how to develop a paragraph with examples and details -
 - that each new paragraph is indented -

B. GRAMMAR AND USAGE

- Understand what a complete sentence is, and identify subject and predicate in single-clause sentences distinguish complete sentences from fragments identify and correct run-on sentences
- Identify subject and verb in a sentence and understand that they must agree.
- Identify and use different sentence types: declarative, interrogative, imperative, exclamatory.
- Know the following parts of speech and how they are used: nouns, pronouns, verbs (action verbs and auxiliary verbs), adjectives (including articles), adverbs, conjunctions (*and, but, or*), interjections.
- Know how to use the following punctuation:
 - end punctuation: period, question mark, or exclamation point
 - comma: between day and year when writing a date, between city and state in an address, in a series, after *yes* and *no*, before conjunctions that combine sentences, inside quotation marks in dialogue
 - apostrophe: in contractions, in singular and plural possessive nouns
 - quotation marks: in dialogue, for titles of poems, songs, short stories, magazine articles
- Understand what synonyms and antonyms are, and provide synonyms or antonyms for given words.
- Use underlining or italics for titles of books.
- Know how the following prefixes and suffixes affect word meaning:
 - Prefixes:
 - im, in* (as in impossible, incorrect)
 - non* (as in nonfiction, nonviolent)
 - mis* (as in misbehave, misspell)
 - en* (as in enable, endanger)
 - pre* (as in prehistoric, pregame)
 - Suffixes:
 - ily, y* (as in easily, speedily, tricky)
 - ful* (as in thoughtful, wonderful)
 - able, ible* (as in washable, flexible)
 - ment* (as in agreement, amazement)
- Review correct usage of problematic homophones:
 - their, there, they're
 - your, you're
 - its, it's
 - here, hear
 - to, too, two

Note: A brief review of prefixes and suffixes introduced in third grade is recommended. Prefixes: *re, un, dis*. Suffixes: *er* and *or, less, ly*.

II. Poetry

Teachers: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose children to more poetry, old and new, and to have children write their own poems. To bring children into the spirit of poetry, read it aloud and encourage them to read it aloud so they can experience the music in the words. At this grade, poetry should be a source of delight; technical analysis should be delayed until later grades.

A. POEMS

Afternoon on a Hill (Edna St. Vincent Millay) -
 Clarence (Shel Silverstein) -
 Clouds (Christina Rossetti) -
 Concord Hymn (Ralph Waldo Emerson) -
 Dreams (Langston Hughes) -
 the drum (Nikki Giovanni) -

Fog (Carl Sandburg) -
 George Washington (Rosemary and Stephen Vincent Benet) -
 Humanity (Elma Stuckey) -
 Life Doesn't Frighten Me (Maya Angelou) -
 Monday's Child Is Fair of Face (traditional) -
 Paul Revere's Ride (Henry Wadsworth Longfellow) -
 The Pobble Who Has No Toes (Edward Lear) -
 The Rhinoceros (Ogden Nash) -
 Things (Eloise Greenfield) -
 A Tragic Story (William Makepeace Thackeray) -

B. TERMS

stanza and line

III. Fiction

Teachers: In fourth grade, children should be fluent, competent readers of appropriate materials. Decoding skills should be automatic, allowing the children to focus on meaning. Regular practice in reading aloud and independent silent reading should continue. Children should read outside of school at least 20 minutes daily.

The titles below constitute a selected core of stories for this grade. Teachers and parents are encouraged to expose children to many more stories, and to encourage children to write their own stories. Children should also be exposed to nonfiction prose: biographies, books about science and history, books on art and music, etc. Also, engage children in dramatic activities, possibly with one of the stories below in the form of a play. Some of the stories below—such as *Gulliver's Travels*, *Robinson Crusoe*, and the stories by Washington Irving—are available in editions adapted for young readers.

A. STORIES

The Fire on the Mountain (an Ethiopian folktale) -
 from *Gulliver's Travels*: Gulliver in Lilliput and Brobdingnag (Jonathan Swift) -
The Legend of Sleepy Hollow and *Rip Van Winkle* (Washington Irving) -
 The Magic Brocade (a Chinese folktale) -
Pollyanna (Eleanor Porter) -
Robinson Crusoe (Daniel Defoe) -
 Robin Hood -
 St. George and the Dragon -
Treasure Island (Robert Louis Stevenson) -

B. MYTHS AND MYTHICAL CHARACTERS

Legends of King Arthur and the Knights of the Round Table
 How Arthur Became King
 The Sword in the Stone
 The Sword Excalibur
 Guinevere
 Merlin and the Lady of the Lake
 Sir Lancelot

C. LITERARY TERMS

novel -
 plot -
 setting -

See also American History 4: American Revolution, re stories by Washington Irving.

Note: "The Magic Brocade" is also known as "The Chuang Brocade," "The Enchanted Tapestry," "The Magic Tapestry," and "The Weaving of a Dream."

See also World History 4: The Middle Ages, re "Robin Hood" and "St. George and the Dragon."

See also World History 4: The Middle Ages, feudalism and chivalry, re Legends of King Arthur.

IV. Speeches

Teachers: Famous passages from the following speeches should be taught in connection with topics in American History 4.

Patrick Henry: "Give me liberty or give me death" -

Sojourner Truth: "Ain't I a woman?" -

V. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

An ounce of prevention is worth a pound of cure. -

As the crow flies -

Beauty is only skin deep. -

The bigger they are, the harder they fall. -

Birds of a feather flock together. -

Blow hot and cold -

Break the ice -

Bull in a china shop -

Bury the hatchet -

Can't hold a candle to -

Don't count your chickens before they hatch. -

Don't put all your eggs in one basket. -

Etc. -

Go to pot -

Half a loaf is better than none. -

Haste makes waste. -

Laugh and the world laughs with you. -

Lightning never strikes twice in the same place. -

Live and let live. -

Make ends meet. -

Make hay while the sun shines. -

Money burning a hole in your pocket -

Once in a blue moon -

One picture is worth a thousand words. -

On the warpath -

RSVP -

Run-of-the-mill -

Seeing is believing. -

Shipshape -

Through thick and thin -

Timbuktu -

Two wrongs don't make a right. -

When it rains, it pours. -

You can lead a horse to water, but you can't make it drink. -

History and Geography: Grade 4

WORLD HISTORY AND GEOGRAPHY

I. World Geography

Teachers: The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge includes a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures. Many geographic topics are listed below in connection with historical topics.

A. SPATIAL SENSE (Working with Maps, Globes, and Other Geographic Tools)

Teachers: Review as necessary map-reading skills and concepts, as well as geographic terms, from previous grades (see Geography guidelines for grade 3).

- Measure distances using map scales.
- Read maps and globes using longitude and latitude, coordinates, degrees.
- Prime Meridian (0 degrees); Greenwich, England; 180° Line (International Date Line)
- Relief maps: elevations and depressions

B. MOUNTAINS AND MOUNTAIN RANGES

- Major mountain ranges
 - South America: Andes
 - North America: Rockies and Appalachians
 - Asia: Himalayas and Urals
 - Africa: Atlas Mountains
 - Europe: Alps
- High mountains of the world
 - Asia: Everest
 - North America: McKinley
 - South America: Aconcagua
 - Europe: Mont Blanc
 - Africa: Kilimanjaro

II. Europe in the Middle Ages

A. GEOGRAPHY RELATED TO THE DEVELOPMENT OF WESTERN EUROPE

- Rivers: Danube, Rhine, Rhone, and Oder
- Mountains: Alps, Pyrenees
- Iberian Peninsula: Spain and Portugal, proximity to North Africa
- France: the region known as Normandy
- Mediterranean Sea, North Sea, Baltic Sea
- British Isles: England, Ireland, Scotland, Wales; the English Channel

B. BACKGROUND

- Beginning about A.D. 200, nomadic, warlike tribes began moving into western Europe, attacking the western Roman Empire; city of Rome sacked by Visigoths in A.D. 410
 - The Huns: Attila the Hun
- Peoples settling in old Roman Empire included Vandals (cf. English word “vandalism”), Franks in Gaul (now France), Angles (in England: cf. “Angle-land”) and Saxons.
- The “Middle Ages” are generally dated from about A.D. 450 to 1400. Approximately the first three centuries after the fall of Rome (A.D. 476) are sometimes called the “Dark Ages.”

See also Science 4: How Mountains Are Formed.

See also Visual Arts 4: Art of the Middle Ages in Europe: Medieval Madonnas and Gothic architecture. And see Music 4, Gregorian chant.

See also Language Arts 4: Legends of King Arthur.

C. DEVELOPMENTS IN HISTORY OF THE CHRISTIAN CHURCH

- Growing power of the pope (Bishop of Rome)
- Arguments among Christians: split into Roman Catholic Church and Eastern Orthodox Church
- Conversion of many Germanic peoples to Christianity
- Rise of monasteries, preservation of classical learning
- Charlemagne
 - Temporarily unites the western Roman Empire
 - Crowned Emperor by the pope in A.D. 800, the idea of a united “Holy Roman Empire”
 - Charlemagne’s love and encouragement of learning

D. FEUDALISM

- Life on a manor, castles
- Lords, vassals, knights, freedmen, serfs
- Code of chivalry
- Knight, squire, page

E. THE NORMAN CONQUEST

- Locate the region called Normandy.
- William the Conqueror: Battle of Hastings, 1066

F. GROWTH OF TOWNS

- Towns as centers of commerce, guilds and apprentices
- Weakening of feudal ties

G. ENGLAND IN THE MIDDLE AGES

- Henry II -
 - Beginnings of trial by jury -
 - Murder of Thomas Becket in Canterbury Cathedral -
 - Eleanor of Aquitaine -
- Significance of the Magna Carta, King John, 1215
- Parliament: beginnings of representative government
- The Hundred Years’ War -
 - Joan of Arc -
- The Black Death sweeps across Europe

III. The Spread of Islam and the “Holy Wars”

Teachers: Since religion is a shaping force in the story of civilization, the *Core Knowledge Sequence* introduces children in the early grades to major world religions, beginning with a focus on geography and major symbols and figures. In the fourth grade the focus is on history, geography, and the development of a civilization. The purpose is not to explore matters of theology but to understand the place of religion and religious ideas in history. The goal is to familiarize, not proselytize; to be descriptive, not prescriptive. The tone should be one of respect and balance: no religion should be disparaged by implying that it is a thing of the past.

A review of major religions introduced in earlier grades in the *Core Knowledge Sequence* is recommended: Judaism/Christianity/Islam (Grade 1) and Hinduism/Buddhism (grade 2).

A. ISLAM

- Muhammad: the last prophet
- Allah, Qur’an, *jihad*
- Sacred city of Makkah, mosques

Note: In older sources you may find these formerly used spellings: Mohammed, Mecca, Koran.

- “Five pillars” of Islam: -
Declaration of faith -
Prayer (five times daily), facing toward Makkah -
Fasting during Ramadan -
Help the needy -
Pilgrimage to Makkah -
- Arab peoples unite to spread Islam in northern Africa, through the eastern Roman empire, and as far west as Spain.
- Islamic Turks conquer region around the Mediterranean; in 1453, Constantinople becomes Istanbul.
- The first Muslims were Arabs, but today diverse people around the world are Muslims.

B. DEVELOPMENT OF ISLAMIC CIVILIZATION

- Contributions to science and mathematics: Avicenna (Ibn Sina), Arabic numerals
- Muslim scholars translate and preserve writings of Greeks and Romans
- Thriving cities as centers of Islamic art and learning, such as Cordoba (Spain)

C. WARS BETWEEN MUSLIMS AND CHRISTIANS

- The Holy Land, Jerusalem
- The Crusades
- Saladin and Richard the Lion-Hearted
- Growing trade and cultural exchange between east and west

See also Visual Arts 4: Islamic Art and Architecture.

IV. Early and Medieval African Kingdoms

A. GEOGRAPHY OF AFRICA

- Mediterranean Sea and Red Sea, Atlantic and Indian Oceans
- Cape of Good Hope
- Madagascar
- Major rivers: Nile, Niger, Congo
- Atlas Mountains, Mt. Kilimanjaro
- Contrasting climate in different regions:
Deserts: Sahara, Kalahari
Tropical rain forests (along lower West African coast and Congo River)
Savanna (grasslands)
The Sahel (the fertile region below the Sahara)

B. EARLY AFRICAN KINGDOMS

- Kush (in a region also called Nubia): once ruled by Egypt, then became rulers of Egypt
- Aksum (also spelled Axum): a trading kingdom in what is now Ethiopia

C. MEDIEVAL KINGDOMS OF THE SUDAN

- Trans-Saharan trade led to a succession of flourishing kingdoms: Ghana, Mali, and Songhai
Camel caravans
Trade in gold, iron, salt, ivory, and slaves
The city of Timbuktu: center of trade and learning
Spread of Islam into West Africa through merchants and travelers
Ibn Batuta (also spelled Battutah, Batuta), world traveler and geographer
- Mali: Sundiata Keita, Mansa Musa
- Songhai: Askia Muhammad

See also Language Arts 4:
“The Fire on the Mountain.”

See also Visual Arts 4: The Art of Africa.

Note: In older sources you are likely to find Chinggis Khan spelled as Genghis Khan, and Khubilai Khan spelled as Kublai Khan.

See also Visual Arts 4: The Art of China; and Language Arts 4: “The Magic Brocade.”

V. China: Dynasties and Conquerors

- Qin Shihuangdi, first emperor, begins construction of Great Wall
- Han dynasty: trade in silk and spices, the Silk Road, invention of paper
- Tang and Song dynasties: highly developed civilization, extensive trade, important inventions (including compass, gunpowder, paper money)
- Mongol invasions and rule
 - Chinggis Khan and the “Golden Horde”
 - Khubilai Khan: establishes capital at what is now Beijing
 - Marco Polo
- Ming dynasty
 - The “Forbidden City”
 - Explorations of Zheng He

American History and Geography



AMERICAN HISTORY AND GEOGRAPHY

Teachers: The following guidelines are meant to complement any locally required studies of the family, community, state, or region. Note that in fifth grade the American Geography requirements include “fifty states and capitals”; teachers in grades two through four may want to introduce these incrementally to prepare for the fifth grade requirement.

I. The American Revolution

Teachers: In fourth grade students should undertake a detailed study of the causes, major figures, and consequences of the American Revolution, with a focus on main events and figures, as well as these questions: What caused the colonists to break away and become an independent nation? What significant ideas and values are at the heart of the American Revolution?

A. BACKGROUND: THE FRENCH AND INDIAN WAR

- Also known as the Seven Years’ War, part of an ongoing struggle between Britain and France for control of colonies in various regions around the world (in this case, in North America)
- Alliances with Native Americans
- The Battle of Quebec
- British victory gains territory but leaves Britain financially weakened.

B. CAUSES AND PROVOCATIONS

- British taxes, “No taxation without representation”
- Boston Massacre, Crispus Attucks
- Boston Tea Party
- The Intolerable Acts close the port of Boston and require Americans to provide quarters for British troops
- First Continental Congress protests to King George III
- Thomas Paine’s *Common Sense*

C. THE REVOLUTION

- Paul Revere’s ride, “One if by land, two if by sea”
- Lexington and Concord -
The “shot heard ’round the world” -
Redcoats and Minute Men -
- Bunker Hill
- Second Continental Congress: George Washington appointed commander in chief of Continental Army
- Declaration of Independence
Primarily written by Thomas Jefferson
Adopted July 4, 1776
“We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness.”
- Women in the Revolution: Elizabeth Freeman, Deborah Sampson, Phillis Wheatley, Molly Pitcher
- Loyalists (Tories)
- Victory at Saratoga, alliance with France
- European helpers (Lafayette, the French fleet, Bernardo de Galvez, Kosciusko, von Steuben)
- Valley Forge
- Benedict Arnold

See also Language Arts 4:
stories by Washington Irving,
and speech by Patrick Henry,
“Give me liberty. . .”

- John Paul Jones: “I have not yet begun to fight.”
- Nathan Hale: “I only regret that I have but one life to lose for my country.”
- Cornwallis: surrender at Yorktown

II. Making a Constitutional Government

Teachers: Examine some of the basic values and principles of American democracy, in both theory and practice, as defined in the Declaration of Independence and the U. S. Constitution, both in historical context and in terms of present-day practice. In examining the significance of the U. S. Constitution, introduce students to the unique nature of the American experiment, the difficult task of establishing a democratic government, the compromises the framers of the Constitution were willing to make, and the persistent threats to success. In order to appreciate the boldness and fragility of the American attempt to establish a republican government based on a constitution, students should know that republican governments were rare at this time. Discuss with students basic questions and issues about government, such as: Why do societies need government? Why does a society need laws? Who makes the laws in the United States? What might happen in the absence of government and laws?

A. MAIN IDEAS BEHIND THE DECLARATION OF INDEPENDENCE

- The proposition that “All men are created equal”
- The responsibility of government to protect the “unalienable rights” of the people
- Natural rights: “Life, liberty, and the pursuit of happiness”
- The “right of the people ... to institute new government”

B. MAKING A NEW GOVERNMENT: FROM THE DECLARATION TO THE CONSTITUTION

- Definition of “republican” government: republican = government by elected representatives of the people
- Articles of Confederation: weak central government
- “Founding Fathers”: James Madison as “Father of the Constitution”
- Constitutional Convention -
Arguments between small and large states -
The divisive issue of slavery, “three-fifths” compromise -

C. THE CONSTITUTION OF THE UNITED STATES

- Preamble to the Constitution: “We the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.”
- The separation and sharing of powers in American government: three branches of government
Legislative branch: Congress = House of Representatives and Senate, makes laws
Executive branch: headed by the president, carries out laws
Judicial branch: a court system headed by the Supreme Court (itself headed by the Chief Justice), deals with those who break laws and with disagreements about laws
- Checks and balances, limits on government power, veto
- The Bill of Rights: first ten amendments to the Constitution, including: -
Freedom of religion, speech, and the press (First Amendment) -
Protection against “unreasonable searches and seizures” -
The right to “due process of law” -
The right to trial by jury -
Protection against “cruel and unusual punishments” -

Note: The National Standards for Civics and Government recommend that students address the issue of power vs. authority: “Where do people in government get the authority to make, apply, and enforce rules and laws and manage disputes about them?” “Identify examples of authority, e.g., the authority of teachers and administrators to make rules for schools, the authority of a crossing guard to direct traffic, the authority of the president to represent the United States in dealing with other nations.” “Identify examples of power without authority, e.g., a neighborhood bully forcing younger children to give up their lunch money, a robber holding up a bank, a gang leader ordering members to injure others.” Available from the Center for Civic Education, 5145 Douglas Fir Road, Calabasas, CA 91302; tel. (818) 591-9321.

D. LEVELS AND FUNCTIONS OF GOVERNMENT (NATIONAL, STATE, LOCAL)

- Identify current government officials, including -
President and vice-president of the U.S. -
State governor -
- State governments: established by state constitutions (which are subordinate to the U.S. Constitution, the highest law in the land), like the national government, each state government has its legislative, executive, and judicial branches
- Local governments: purposes, functions, and officials
- How government services are paid for (taxes on individuals and businesses, fees, tolls, etc.)
- How people can participate in government

III. Early Presidents and Politics

- Define: cabinet and administration
- George Washington as first President, Vice-President John Adams
- John Adams, second president, Abigail Adams
- National capitol established at Washington, D.C.
- Growth of political parties
Arguments between Thomas Jefferson and Alexander Hamilton: two opposed visions of America, as an agricultural or industrial society
Present-day system: two main parties (Democrats and Republicans), and independents
- Thomas Jefferson, third president
Correspondence between Jefferson and Benjamin Banneker
Jefferson as multifaceted leader (architect, inventor, musician, etc.)
The Louisiana Purchase (review from grade 1) doubles the nation's size and gains control of Mississippi River.
- James Madison, fourth president -
War of 1812 (briefly review from grade 2) -
- James Monroe, fifth president, the Monroe Doctrine
- John Quincy Adams, sixth president
- Andrew Jackson, seventh president -
Popular military hero, Battle of New Orleans in War of 1812 -
Presidency of "the common man" -
Indian removal policies -

See also Visual Arts 4:
The Art of a New Nation,
Architecture of Monticello;
and Science Biographies 4:
Benjamin Banneker.

IV. Reformers

Teachers: Introduce children to some prominent people and movements in the ferment of social change in America prior to the Civil War:

- Abolitionists
- Dorothea Dix and the treatment of the insane
- Horace Mann and public schools
- Women's rights -
Seneca Falls convention -
Elizabeth Cady Stanton -
Lucretia Mott -
Amelia Bloomer -
Sojourner Truth -

See also Language Arts 4:
Speeches, Sojourner Truth's
"Ain't I a woman?"

V. Symbols and Figures

- Recognize and become familiar with the significance of -
Spirit of '76 (painting) -
White House and Capitol Building -
Great Seal of the United States -

Visual Arts: Grade 4

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

In studying the works of art specified below, and in creating their own art, students should review, develop, and apply concepts introduced in previous grades, such as line, shape, form, space, texture, color, light, design, symmetry, etc.

I. Art of the Middle Ages in Europe

Teachers: Study of the following works of art may be integrated with study of related topics in fourth grade World History: Europe in the Middle Ages.

- Note the generally religious nature of European art in the Middle Ages, including Examples of medieval Madonnas (such as *Madonna and Child on a Curved Throne*—13th century Byzantine) -
Illuminated manuscripts (such as *The Book of Kells*) -
Tapestries (such as the Unicorn tapestries) -
- Become familiar with features of Gothic architecture (spires, pointed arches, flying buttresses, rose windows, gargoyles and statues) and famous cathedrals, including Notre Dame (Paris).

II. Islamic Art and Architecture

Teachers: Study of the following works of art may be integrated with study of related topics in fourth grade World History: The Spread of Islam.

- Become familiar with examples of Islamic art, including illuminated manuscript and illumination of the Qur'an (Koran).
- Note characteristic features of Islamic architecture, such as domes and minarets, in Dome of the Rock (Mosque of Omar), Jerusalem
Alhambra Palace, Spain
Taj Mahal, India

III. The Art of Africa

Teachers: Study of the following works of art may be integrated with study of related topics in fourth grade World History: Early and Medieval African Kingdoms.

- Note the spiritual purposes and significance of many African works of art, such as masks used in ceremonies for planting, harvesting, or hunting.
- Become familiar with examples of art from specific regions and peoples in Africa, such as -
Antelope headdresses of Mali -
Sculptures by Yoruba artists in the city of Ife -
Ivory carvings and bronze sculptures of Benin -

IV. The Art of China

Teachers: Study of the following works of art may be integrated with study of related topics in fourth grade World History, China: Dynasties and Conquerors.

- Become familiar with examples of Chinese art, including -
 Silk scrolls -
 Calligraphy (the art of brush writing and painting) -
 Porcelain -

V. The Art of a New Nation: The United States

Teachers: Study of the following works of art may be integrated with study of related topics in fourth grade American History.

Note: While *Washington Crossing the Delaware* is not in origin an American work of art—it was painted by Emanuel Leutze, a German, some seventy-five years after the event it depicts—it has become widely recognized and embraced as a symbol of the American Revolution.

- Become familiar with famous portraits and paintings, including -
 John Singleton Copley, *Paul Revere*
 Gilbert Stuart, *George Washington*
 Washington Crossing the Delaware
- Become familiar with the architecture of Thomas Jefferson's Monticello.

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.

The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).

I. Elements of Music

- Through participation, become familiar with basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
 - Recognize a steady beat, accents, and the downbeat; play a steady beat and a simple rhythm pattern.
 - Discriminate between fast and slow; gradually slowing down and getting faster.
 - Discriminate between differences in pitch: high and low.
 - Discriminate between loud and soft; gradually increasing and decreasing volume.
 - Understand *legato* (smoothly flowing progression of notes) and *staccato* (crisp, distinct notes).
 - Sing unaccompanied, accompanied, and in unison.
 - Recognize harmony; sing simple rounds and canons.
 - Recognize verse and refrain; also, introduction and coda.
 - Continue work with timbre and phrasing.
 - Recognize theme and variations, and listen to Mozart, *Variations on “Ah! vous dirai-je Maman”* (familiarily known as “Twinkle Twinkle Little Star”).
 - Sing or play simple melodies.
- Understanding the following notation:
 - names of lines and spaces in the treble clef; middle C
 - treble clef, staff, bar line, double bar line, measure, repeat signs
 - whole note half note quarter note eighth note
 - whole rest, half rest, quarter rest
 - tied notes and dotted notes
 - # sharps ♭ flats
 - Da capo* [*DC*] *al fine*
 - meter signature $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$
 - soft *pp* *p* *mp* loud *mf* *f* *ff*

II. Listening and Understanding

Teachers: Expose children to a wide range of music, including children’s music, popular instrumental music, and music from various cultures.

A. THE ORCHESTRA

- Review the orchestra, including families of instruments and specific instruments, by listening to Benjamin Britten, *The Young Person’s Guide to the Orchestra*.

B. VOCAL RANGES

Teachers: Students should learn to recognize and name the different vocal ranges, and apply their knowledge by beginning part singing.

See below, Composers and Their Music: Mozart, *Magic Flute*.

Recognize vocal ranges of the female voice:

high = soprano
middle = mezzo soprano
low = alto

Recognize vocal ranges of the male voice:

high = tenor
middle = baritone
low = bass

C. COMPOSERS AND THEIR MUSIC

Teachers: Provide brief, child-friendly biographical profiles of the following composers, and listen to representative works.

Note: Children were introduced to Mozart and the first movement of *A Little Night Music* in first grade.

- George Frederick Handel, “Hallelujah Chorus” from *The Messiah*
- Franz Joseph Haydn, *Symphony No. 94* (“*Surprise*”)
- Wolfgang Amadeus Mozart, *The Magic Flute*, selections, including:
Overture; Introduction, “Zu Hilfe! Zu Hilfe!” (Tamino, Three Ladies); Aria, “Der Vogelfänger bin ich ja” (Papageno); Recitative and Aria, “O zittre nicht, mein lieber Sohn!” (Queen of the Night); Aria, “Ein Mädchen oder Weibchen” (Papageno); Duet, “Pa-pa-gena! Pa-pa-geno!” (Papageno and Papagena); Finale, Recitative and Chorus, “Die Strahlen der Sonne” (Sarastro and Chorus)

D. MUSICAL CONNECTIONS

Teachers: Introduce children to the following in connection with topics in other disciplines:

See also World History 4: The Middle Ages, re Gregorian chant.

- Gregorian chant

III. Songs

Auld Lang Syne
Blow the Man Down
Cockles and Mussels
Comin’ Through the Rye
I Love the Mountains (round) ?
Loch Lomond
My Grandfather’s Clock
Taps
The Yellow Rose of Texas
Waltzing Matilda

Songs of the U.S. Armed Forces:

Air Force Song
Navy Song (Anchors Aweigh)
The Army Goes [The Caissons Go] Rolling Along
The Marine’s Hymn

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving “higher order” skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.

I. Numbers and Number Sense

- Read and write numbers (in digits and words) up to nine digits.
- Recognize place value up to hundred millions.
- Order and compare numbers to 999,999,999 using the signs $<$, $>$, and $=$.
- Write numbers in expanded form.
- Use a number line; locate positive and negative whole numbers on a number line.
- Round to the nearest ten; to the nearest hundred; to the nearest thousand.
- Identify perfect squares (and square roots) to 144; recognize the square root sign: $\sqrt{\quad}$
- Identify Roman numerals from 1 to 1,000 (I - M), and identify years as written in Roman numerals.
- Create and interpret bar graphs and line graphs.
- Plot points on a coordinate plane (grid), using ordered pairs of positive whole numbers.
- Know the meanings of multiple, factor, prime number, and composite number.

II. Fractions and Decimals

A. FRACTIONS

- Recognize fractions to one-twelfth.
- Identify numerator and denominator.
- Write mixed numbers; change improper fractions to mixed numbers and vice versa.
- Recognize equivalent fractions (for example, $\frac{1}{2} = \frac{3}{6}$).
- Put fractions in lowest terms.
- Rename fractions with unlike denominators to fractions with common denominators.
- Compare fractions with like and unlike denominators, using the signs $<$, $>$, and $=$.
- Solve problems in the form of $\frac{2}{3} = \frac{\quad}{12}$.
- Add and subtract fractions with like denominators.
- Express simple outcomes as fractions (for example, 3 out of 4 as $\frac{3}{4}$).

B. DECIMALS

- Read and write decimals to the nearest thousandth.
- Read and write decimals as fractions (for example, $0.39 = 39/100$).
- Write decimal equivalents for halves, quarters, eighths, and tenths.
- Compare fractions to decimals using the signs $<$, $>$, and $=$.
- Write decimals in expanded form.
- Round decimals to the nearest tenth; to the nearest hundredth.
- Compare decimals, using the signs $<$, $>$, and $=$.
- Read and write decimals on a number line.
- Add and subtract with decimal numbers to two places.

III. Money

- Solve problems involving making change in amounts up to \$100.00.
- Solve multiplication and division problems with money.

IV. Computation

Teachers: By this grade level, children should have mastered all basic whole number operations for addition and subtraction. Review and reinforce topics from previous grades as necessary.

A. MULTIPLICATION

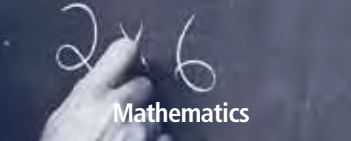
- Review and reinforce basic multiplication facts to 10×10 .
- Mentally multiply by 10, 100, and 1,000.
- Identify multiples of a given number; common multiples of two given numbers.
- Multiply by two-digit and three-digit numbers.
- Write numbers in expanded form using multiplication.
- Estimate a product.
- Use mental computation strategies for multiplication, such as breaking a problem into partial products, for example: $3 \times 27 = (3 \times 20) + (3 \times 7) = 60 + 21 = 81$.
- Check multiplication by changing the order of the factors.
- Multiply three factors in any given order.
- Solve word problems involving multiplication.

B. DIVISION

- Understand multiplication and division as inverse operations.
- Review the meaning of dividend, divisor, and quotient.
- Review and reinforce basic division facts to $100 \div 10$.
- Identify different ways of writing division problems: $28 \div 7$ $7 \overline{)28}$ $28/7$
- Identify factors of a given number; common factors of two given numbers.
- Review: you cannot divide by 0; any number divided by 1 = that number.
- Estimate the quotient.
- Divide dividends up to four-digits by one-digit and two-digit divisors.
- Solve division problems with remainders.
- Check division by multiplying (and adding remainder).

C. SOLVING PROBLEMS AND EQUATIONS

- Solve two-step word problems.
- Solve equations in the form of $__ \times 9 = 63$; $81 \div __ = 9$.
- Solve problems with more than one operation, as in $(72 \div 9) \times (36 \div 4) = __$
- Equality properties -
 Know that equals added to equals are equal. -
 Know that equals multiplied by equals are equal. -
- Use letters to stand for any number, as in working with a formula (for example, area of rectangle: $A = L \times W$).



V. Measurement

- Linear measure: estimate and make linear measurements in yards, feet, and inches (to $\frac{1}{8}$ in.); and in meters, centimeters, and millimeters.
- Weight: estimate and measure weight in pounds and ounces; grams and kilograms.
- Capacity (volume): estimate and measure liquid capacity in teaspoons, tablespoons, cups, pints, quarts, gallons; and in milliliters and liters.
- Know the following equivalences among U. S. customary units of measurement, and solve problems involving changing units of measurement: -
 - Linear measure -
 - 1 ft. = 12 in. -
 - 1 yd. = 3 ft. = 36 in. -
 - 1 mi. = 5,280 ft. -
 - 1 mi. = 1,760 yd. -
 - Weight -
 - 1 lb. = 16 oz. -
 - 1 ton = 2,000 lb. -
 - Capacity (volume) -
 - 1 cup = 8 fl. oz. (fluid ounces) -
 - 1 pt. = 2 c. -
 - 1 qt. = 2 pt. -
 - 1 gal. = 4 qt. -
- Know the following equivalences among metric units of measurement, and solve problems involving changing units of measurement: -
 - Linear measure -
 - 1 cm = 10 mm (millimeters) -
 - 1 m = 1,000 mm -
 - 1 m = 100 cm -
 - 1 km = 1,000 m -
 - Mass -
 - 1 cg (centigram) = 10 mg (milligrams) -
 - 1 g = 1,000 mg -
 - 1 g = 100 cg -
 - 1 kg = 1,000 g -
 - Capacity (volume) -
 - 1 cl (centiliter) = 10 ml (milliliters) -
 - 1 liter = 1,000 ml -
 - 1 liter = 100 cl -
- Time: solve problems on elapsed time.

VI. Geometry

- Identify and draw points, segments, rays, lines.
- Identify and draw lines: horizontal; vertical; perpendicular; parallel; intersecting.
- Identify angles; identify angles as right, acute, or obtuse.
- Identify polygons: -
 - Triangle, quadrilateral, pentagon, hexagon, and octagon (regular) -
 - Parallelogram, trapezoid, rectangle, square -
- Identify and draw diagonals of quadrilaterals.
- Circles: Identify radius (plural: radii) and diameter; radius = $\frac{1}{2}$ diameter
- Recognize similar and congruent figures.
- Know the formula for the area of a rectangle (Area = length x width) and solve problems involving finding area in a variety of square units (such as mi^2 ; yd^2 ; ft^2 ; in^2 ; km^2 ; m^2 ; cm^2 ; mm^2)
- Compute volume of rectangular prisms in cubic units (cm^3 , in^3).

Science: Grade 4



Teachers: Effective instruction in science requires hands-on experience and observation. In the words of the 1993 report from the American Association for the Advancement of Science, *Benchmarks for Science Literacy*, "From their very first day in school, students should be actively engaged in learning to view the world scientifically. That means encouraging them to ask questions about nature and to seek answers, collect things, count and measure things, make qualitative observations, organize collections and observations, discuss findings, etc."

While experience counts for much, book learning is also important, for it helps bring coherence and order to a child's scientific knowledge. Only when topics are presented systematically and clearly can children make steady and secure progress in their scientific learning. The child's development of scientific knowledge and understanding is in some ways a very disorderly and complex process, different for each child. But a systematic approach to the exploration of science, one that combines experience with book learning, can help provide essential building blocks for deeper understanding at a later time.

Note: The lymphatic system will be studied in grade 6.

See below, Science Biographies, Charles Drew.

I. The Human Body

A. THE CIRCULATORY SYSTEM

- Pioneering work of William Harvey
- Heart: four chambers (atrium/atria or atriums [plural] and ventricle/ventricles), aorta
- Blood
 - Red blood cells (corpuscles), white blood cells (corpuscles), platelets, hemoglobin, plasma, antibodies -
 - Blood vessels: arteries, veins, capillaries -
 - Blood pressure, pulse -
 - Coagulation (clotting) -
- Filtering function of liver and spleen
- Fatty deposits can clog blood vessels and cause a heart attack.
- Blood types (four basic types: A, B, AB, O) and transfusions

B. THE RESPIRATORY SYSTEM

- Process of taking in oxygen and getting rid of carbon dioxide
- Nose, throat, voice box, trachea (windpipe)
- Lungs, bronchi, bronchial tubes, diaphragm, ribs, alveoli (air sacs)
- Smoking: damage to lung tissue, lung cancer

II. Chemistry: Basic Terms and Concepts

A. ATOMS

- All matter is made up of particles too small for the eye to see, called atoms.
- Scientists have developed models of atoms; while these models have changed over time as scientists make new discoveries, the models help us imagine what we cannot see.
- Atoms are made up of even tinier particles: protons, neutrons, electrons.
- The concept of electrical charge
 - Positive charge (+): proton
 - Negative charge (-): electron
 - Neutral (neither positive nor negative): neutron
 - "Unlike charges attract, like charges repel" (relate to magnetic attraction and repulsion)

B. PROPERTIES OF MATTER

- Mass: the amount of matter in an object, similar to weight
- Volume: the amount of space a thing fills
- Density: how much matter is packed into the space an object fills
- Vacuum: the absence of matter

Note: Children are likely to have a notion of atoms that, in absolute scientific terms, is inaccurate. There is no need to be concerned with this inaccuracy at this grade level, since the goal here is to introduce concepts and terms that, over time, will be more precisely defined and understood in greater depth.



C. ELEMENTS

- Elements are the basic kinds of matter, of which there are a little more than one hundred. There are many different kinds of atoms, but an element has only one kind of atom. Familiar elements, such as gold, copper, aluminum, oxygen, iron. Most things are made up of a combination of elements.

D. SOLUTIONS

- A solution is formed when a substance (the solute) is dissolved in another substance (the solvent), such as when sugar or salt is dissolved in water; the dissolved substance is present in the solution even though you cannot see it.
- Concentration and saturation (as demonstrated through simple experiments with crystallization)

III. Electricity

Teachers: Through reading, observation, and experiment, examine the following:

- Electricity as the charge of electrons
- Static electricity
- Electric current
- Electric circuits, and experiments with simple circuits (battery, wire, light bulb, filament, switch, fuse) -
Closed circuit, open circuit, short circuit -
- Conductors and insulators
- Electromagnets: how they work and common uses
- Using electricity safely

See above, Chemistry, re electrons.

Note: Students will study electricity in more detail in grade 8.

IV. Geology: The Earth and Its Changes

A. THE EARTH'S LAYERS

- Crust, mantle, core (outer core and inner core)
- Movement of crustal plates
- Earthquakes -
Faults, San Andreas fault -
Measuring intensity: seismograph and Richter scale -
Tsunamis -
- Volcanoes -
Magma -
Lava and lava flow -
Active, dormant, or extinct -
Famous volcanoes: Vesuvius, Krakatoa, Mount St. Helens -
- Hot springs and geysers: Old Faithful (in Yellowstone National Park)
- Theories of how the continents and oceans were formed: Pangaea and continental drift

B. HOW MOUNTAINS ARE FORMED

- Volcanic mountains, folded mountains, fault-block mountains, dome-shaped mountains
- Undersea mountain peaks and trenches (Mariana Trench)

C. ROCKS

- Formation and characteristics of metamorphic, igneous, and sedimentary rock

See also Geography 4: Major Mountain Ranges.

D. WEATHERING AND EROSION

- Physical and chemical weathering
- Weathering and erosion by water, wind, and glaciers
- The formation of soil: topsoil, subsoil, bedrock

V. Meteorology

- The water cycle (review from grade 2): evaporation, condensation, precipitation
- Clouds: cirrus, stratus, cumulus (review from grade 2)
- The atmosphere -
Troposphere, stratosphere, mesosphere, thermosphere, exosphere -
How the sun and the earth heat the atmosphere -
- Air movement: wind direction and speed, prevailing winds, air pressure, low and high pressure, air masses
- Cold and warm fronts: thunderheads, lightning and electric charge, thunder, tornadoes, hurricanes
- Forecasting the weather: barometers (relation between changes in atmospheric pressure and weather), weather maps, weather satellites
- Weather and climate: “weather” refers to daily changes in temperature, rainfall, sunshine, etc., while “climate” refers to weather trends that are longer than the cycle of the seasons.

VI. Science Biographies

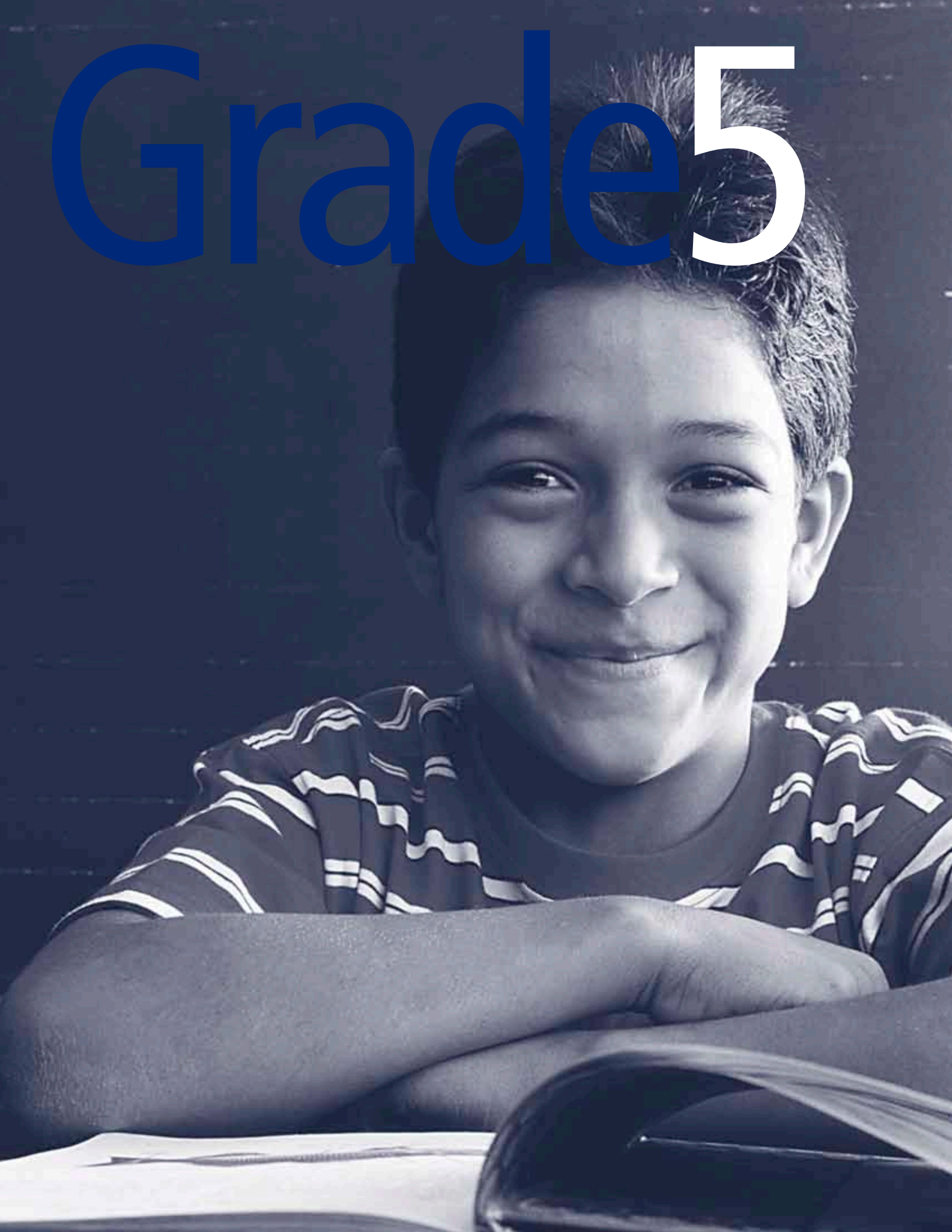
Benjamin Banneker (published almanac; reproduced plans to build Washington, D.C. entirely from memory)

Elizabeth Blackwell (first female to graduate from medical school in the United States)

Charles Drew (pioneered work in blood research, blood transfusions, and the development of blood banks)

Michael Faraday (chemist and physicist whose work led to the development of the electric motor and electric generator)

Grade5



Overview of Topics

Grade 5

Language Arts

- I. Writing, Grammar, and Usage
 - A. Writing and Research
 - B. Grammar and Usage
 - C. Vocabulary
- II. Poetry
 - A. Poems
 - B. Terms
- III. Fiction and Drama
 - A. Stories
 - B. Drama
 - C. Myths and Legends
 - D. Literary Terms
- IV. Speeches
- V. Sayings and Phrases

History and Geography

World:

- I. World Geography
 - A. Spatial Sense
 - B. Great Lakes of the World
- II. Early American Civilizations
 - A. Geography
 - B. Maya, Aztec and Inca Civilizations
 - C. Spanish Conquerors
- III. European Exploration, Trade, and the Clash of Cultures
 - A. Background
 - B. European Exploration, Trade, and Colonization
 - C. Trade and Slavery
- IV. The Renaissance and the Reformation
 - A. The Renaissance
 - B. The Reformation
- V. England from the Golden Age to the Glorious Revolution
 - A. England in the Golden Age
 - B. From the English Revolution to the Glorious Revolution
- VI. Russia: Early Growth and Expansion
 - A. Geography
 - B. History and Culture
- VII. Feudal Japan
 - A. Geography
 - B. History and Culture

American:

- I. Westward Expansion
 - A. Westward Expansion before the Civil War
 - B. Westward Expansion after the Civil War
- II. The Civil War: Causes, Conflicts, Consequences
 - A. Toward the Civil War
 - B. The Civil War
 - C. Reconstruction

- III. Native Americans: Cultures and Conflicts
 - A. Culture and Life
 - B. American Government Policies
 - C. Conflicts
- IV. U. S. Geography

Visual Arts

- I. Art of the Renaissance
- II. American Art: Nineteenth-Century United States
- III. Art of Japan

Music

- I. Elements of Music
- II. Listening and Understanding
 - A. Composers and Their Music
 - B. Musical Connections
- III. American Musical Traditions (Spirituals)
- IV. Songs

Mathematics

- I. Numbers and Number Sense
- II. Ratio and Percent
 - A. Ratio
 - B. Percent
- III. Fractions and Decimals
 - A. Fractions
 - B. Decimals
- IV. Computation
 - A. Addition
 - B. Multiplication
 - C. Division
 - D. Solving Problems and Equations
- V. Measurement
- VI. Geometry
- VII. Probability and Statistics
- VIII. Pre-Algebra

Science

- I. Classifying Living Things
- II. Cells: Structures and Processes
- III. Plant Structures and Processes
 - A. Structure: Non-Vascular and Vascular Plants
 - B. Photosynthesis
 - C. Reproduction
- IV. Life Cycles and Reproduction
 - A. The Life Cycle and Reproduction
 - B. Sexual Reproduction in Animals
- V. The Human Body
 - A. Changes in Human Adolescence
 - B. The Endocrine System
 - C. The Reproductive System
- VI. Chemistry: Matter and Change
 - A. Atoms, Molecules, and Compounds
 - B. Elements
 - C. Chemical and Physical Change
- VII. Science Biographies

Language Arts: Grade 5

The *Common Core State Standards for English Language Arts* emphasize the critical importance of building nonfiction background knowledge in a coherent and sequenced way within and across grades. This can be accomplished most effectively, at each grade level, by integrating the topics from history, geography, science, and the arts in the *Core Knowledge Sequence* into the language arts block. Note that in the *Sequence*, there are many cross-curricular connections to history and science topics within Language Arts (e.g., poems, stories, and sayings), as well as to visual arts and music, which can and should be integrated into the applicable domain of study.

For Grade 5, domains include: Early American Civilizations; European Exploration, Trade, and the Clash of Cultures; The Renaissance and the Reformation; England from the Golden Age to the Glorious Revolution; Russia: Early Growth and Expansion; Feudal Japan; Westward Expansion; The Civil War: Causes, Conflicts, Consequences; Native Americans: Cultures and Conflicts; Classifying Living Things; Cells: Structures and Processes; Plant Structures and Processes; Life Cycles and Reproduction; The Human Body.

NOTE: The objectives listed in I. Writing, Grammar, and Usage are currently under revision, as part of the *Core Knowledge Language Arts* program development for Grades 3–5. The revised Grade 5 goals and objectives will be conceptually consistent with the K–2 language arts sections of the 2010 edition of the *Sequence* and will be posted at www.coreknowledge.org as part of the online *Sequence* as soon as they are available.

I. Writing, Grammar, and Usage

Teachers: Students should be given many opportunities for writing with teacher guidance that strikes a balance between encouraging creativity and requiring correct use of conventions. Continue imaginative writing but place a stronger emphasis than in previous grades on expository writing, including, for example, summaries, book reports, essays that explain a process, and descriptive essays. In fifth grade, it is appropriate to place a greater emphasis on revision, with the expectation that students will revise and edit to produce (in some cases) a finished product that is thoughtful, well-organized, and reasonably correct in grammar, mechanics, and spelling. In fifth grade, students should be reasonably competent spellers, and in the habit of using a dictionary to check and correct words that present difficulty. They should receive regular practice in vocabulary enrichment.

Note: Review from grade 4: how to use a topic sentence; how to develop a paragraph with examples and details.

A. WRITING AND RESEARCH

- Produce a variety of types of writing—including reports, summaries, letters, descriptions, research essays, essays that explain a process, stories, poems—with a coherent structure or story line.
- Know how to gather information from different sources (such as an encyclopedia, magazines, interviews, observations, atlas, on-line), and write short reports synthesizing information from at least three different sources, presenting the information in his or her own words, with attention to the following:
 - understanding the purpose and audience of the writing -
 - defining a main idea and sticking to it -
 - providing an introduction and conclusion -
 - organizing material in coherent paragraphs -
 - illustrating points with relevant examples -
 - documenting sources in a rudimentary bibliography -

Note: Punctuation studied in earlier grades includes: end punctuation (period, question mark, or exclamation point); comma (between day and year when writing a date, between city and state in an address, in a series, after yes and no, before conjunctions that combine sentences, inside quotation marks in dialogue); apostrophe (in contractions, in singular and plural possessive nouns); and quotation marks (in dialogue, and for titles of poems, songs, short stories, magazine articles).

Note: A brief review of prefixes and suffixes introduced in earlier grades is recommended. Prefixes: *re*, *un*, *dis*, *im* (*in*), *non*, *mis*, *en*, *pre*. Suffixes: *er* and *or*, *less*, *ly*, *ily*, *y*, *ful*, *able*, *ible*, *ment*.

B. GRAMMAR AND USAGE

- Understand what a complete sentence is, and -
identify subject and predicate -
correct fragments and run-ons -
- Identify subject and verb in a sentence and understand that they must agree.
- Know the following parts of speech and how they are used: nouns, verbs (action verbs and auxiliary verbs), adjectives (including articles), adverbs, conjunctions, interjections.
- Understand that pronouns must agree with their antecedents in case (nominative, objective, possessive), number, and gender.
- Correctly use punctuation studied in earlier grades, as well as -
the colon before a list -
commas with an appositive -
- Use underlining or italics for titles of books.

C. VOCABULARY

- Know how the following prefixes and suffixes affect word meaning:
Prefixes:
anti (as in antisocial, antibacterial) *inter* (as in interstate) -
co (as in coeducation, co-captain) *mid* (as in midnight, Midwest) -
fore (as in forefather, foresee) *post* (as in postseason, postwar) -
il, *ir* (as in illegal, irregular) *semi* (as in semicircle, semiprecious) -
Suffixes:
ist (as in artist, pianist)
ish (as in stylish, foolish)
ness (as in forgiveness, happiness)
tion, *sion* (as in relation, extension)

II. Poetry

Teachers: The poems listed here constitute a selected core of poetry for this grade. Expose children to more poetry, old and new, and have children write their own poems. To bring children into the spirit of poetry, read it aloud and encourage them to read it aloud so they can experience the music in the words. At this grade, poetry should be primarily a source of delight. This is also an appropriate grade at which to begin looking at poems in more detail, asking questions about the poet's use of language, noting the use of devices such as simile, metaphor, alliteration, etc.

A. POEMS

- The Arrow And The Song (Henry Wadsworth Longfellow) -
- Barbara Frietchie (John Greenleaf Whittier) -
- Battle Hymn of the Republic (Julia Ward Howe) -
- A bird came down the walk (Emily Dickinson)
- Casey at the Bat (Ernest Lawrence Thayer) -
- The Eagle (Alfred Lord Tennyson) -
- I Hear America Singing (Walt Whitman) -
- I like to see it lap the miles (Emily Dickinson) -
- I, too, sing America (Langston Hughes) -
- Jabberwocky (Lewis Carroll) -
- Narcissa (Gwendolyn Brooks) -
- O Captain! My Captain! (Walt Whitman) -
- A Poison Tree (William Blake) -
- The Road Not Taken (Robert Frost) -
- The Snowstorm (Ralph Waldo Emerson) -
- Some Opposites (Richard Wilbur) -
- The Tiger (William Blake) -
- A Wise Old Owl (Edward Hersey Richards) -

Note: See also below, III. D, Literary Terms: Literal and figurative language.

- B. TERMS**
 onomatopoeia
 alliteration -

III. Fiction and Drama

Teachers: In fifth grade, students should be fluent, competent readers of appropriate materials. Regular independent silent reading should continue. Students should read outside of school at least 25 minutes daily.

The titles below constitute a selected core of stories for this grade. Expose children to many more stories, and encourage children to write their own stories. Children should also be exposed to nonfiction prose: biographies, books about science and history, books on art and music, etc.

Some of the works below, such as *Don Quixote*, *Narrative of the Life of Frederick Douglass*, or *A Midsummer Night's Dream* are available in editions adapted for young readers.

A. STORIES

- The Adventures of Tom Sawyer* (Mark Twain) -
- episodes from *Don Quixote* (Miguel de Cervantes) -
- Little Women* (Part First) (Louisa May Alcott) -
- Narrative of the Life of Frederick Douglass* (Frederick Douglass) -
- The Secret Garden* (Frances Hodgson Burnett) -
- Tales of Sherlock Holmes, including "The Red-Headed League" (Arthur Conan Doyle) -

See also World History 5:
 The Renaissance, re *Don Quixote*.

B. DRAMA

- *A Midsummer Night's Dream* (William Shakespeare)
- Terms: -
 - tragedy and comedy -
 - act, scene -
 - Globe Theater -

See also World History 5:
 The Renaissance, re *A Midsummer Night's Dream*.

C. MYTHS AND LEGENDS

- A Tale of the Oki Islands (a legend from Japan, also known as "The Samurai's Daughter")
- Morning Star and Scarface: the Sun Dance (a Plains Native American legend, also known as "The Legend of Scarface")
- Native American trickster stories (for example, tales of Coyote, Raven, or Grandmother Spider)

See also World History 5:
 Feudal Japan, re "A Tale of the Oki Islands."

See also American History 5:
 Native American Cultures, re "Morning Star and Scarface" and Native American trickster stories.

D. LITERARY TERMS

- Pen name (pseudonym)
- Literal and figurative language -
 - imagery -
 - metaphor and simile -
 - symbol -
 - personification -

IV. Speeches

- Abraham Lincoln: The Gettysburg Address
- Chief Joseph (Highh'moot Tooyalakekt): "I will fight no more forever"

See also American History 5:
 Civil War; and, Native Americans: Cultures and Conflicts.

V. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

Birthday suit
 Bite the hand that feeds you.
 Chip on your shoulder
 Count your blessings.
 Eat crow
 Eleventh hour
 Eureka!
 Every cloud has a silver lining.
 Few and far between
 Forty winks
 The grass is always greener on the
 other side (of the hill).
 To kill two birds with one stone
 Lock, stock and barrel
 Make a mountain out of a molehill

A miss is as good as a mile. -
 It's never too late to mend. -
 Out of the frying pan and into the fire. -
 A penny saved is a penny earned. -
 Read between the lines. -
 Sit on the fence -
 Steal his/her thunder -
 Take the bull by the horns. -
 Till the cows come home -
 Time heals all wounds. -
 Tom, Dick and Harry -
 Vice versa -
 A watched pot never boils. -
 Well begun is half done. -
 What will be will be. -

History and Geography: Grade 5

WORLD HISTORY AND GEOGRAPHY

I. World Geography

Teachers: The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge includes a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures. Many geographic topics are listed below in connection with historical topics.

A. SPATIAL SENSE (Working with Maps, Globes, and Other Geographic Tools)

Teachers: Review as necessary map-reading skills and concepts, as well as geographic terms, from previous grades.

- Read maps and globes using longitude and latitude, coordinates, degrees.
- Tropic of Cancer and Tropic of Capricorn: relation to seasons and temperature
- Climate zones: Arctic, Tropical, Temperate
- Time zones (review from Grade 4): Prime Meridian (0 degrees); Greenwich, England; 180° Line (International Date Line)
- Arctic Circle (imaginary lines and boundaries) and Antarctic Circle
- From a round globe to a flat map: Mercator projection, conic and plane projections

B. GREAT LAKES OF THE WORLD

- Eurasia: Caspian Sea
- Asia: Aral Sea
- Africa: Victoria, Tanganyika, Chad
- North America: Superior, Huron, Michigan
- South America: Maracaibo, Titicaca

II. Early American Civilizations

Teachers: Discuss with students: How do we know about these ancient civilizations? (Through archaeological findings; ancient artifacts and writings; writings by European missionaries and conquerors, etc.).

A. GEOGRAPHY

- Identify and locate Central America and South America on maps and globes.
Largest countries in South America: Brazil and Argentina
- Amazon River
- Andes Mountains

B. MAYA, AZTEC, AND INCA CIVILIZATIONS

- The Mayas
Ancient Mayas lived in what is now southern Mexico and parts of Central America; their descendants still live there today.
Accomplishments as architects and artisans: pyramids and temples
Development of a system of hieroglyphic writing
Knowledge of astronomy and mathematics; development of a 365-day calendar;
early use of concept of zero

See also below, II.A:
Geography of Early American
Civilizations; III.C: Trade and
Slavery; VI.B: Geography of
Russia; VII.B: Geography of
Japan.

- The Aztecs
A warrior culture, at its height in the 1400s and early 1500s, the Aztec empire covered much of what is now central Mexico.
The island city of Tenochtitlan: aqueducts, massive temples, etc.
Moctezuma (also spelled Montezuma)
Ruler-priests; practice of human sacrifice
- The Inca
Ruled an empire stretching along the Pacific coast of South America
Built great cities (Machu Picchu, Cuzco) high in the Andes, connected by a system of roads
- C. **SPANISH CONQUERORS**
 - Conquistadors: Cortés and Pizarro -
Advantage of Spanish weapons (guns, cannons) -
Diseases devastate native peoples -

III. European Exploration, Trade, and the Clash of Cultures

Teachers: It is recommended that you use timelines to place these people and events in the context of the students' previous studies (especially in grade 3) of the early exploration and settlement of North America. Fifth grade teachers should examine the third grade guidelines for American History in order to use the familiar topics as a foundation upon which to build knowledge of the new topics.

Note: Place the great wave of exploration by Europeans in the context of various peoples exploring beyond their own borders, including Islamic traders and (recall from Grade 4) Zheng He of China.

- A. **BACKGROUND**
 - Beginning in the 1400s Europeans set forth in a great wave of exploration and trade.
 - European motivations
Muslims controlled many trade routes.
Profit through trade in goods such as gold, silver, silks, sugar, and spices
Spread of Christianity: missionaries
 - Geography of the spice trade
The Moluccas, also called the "Spice Islands": part of present-day Indonesia
Locate: the region known as Indochina, the Malay Peninsula, the Philippines
Definition of "archipelago"
"Ring of Fire": earthquakes and volcanic activity
- B. **EUROPEAN EXPLORATION, TRADE, AND COLONIZATION**
 - Portugal -
Prince Henry the Navigator, exploration of the West African coast -
Bartolomeu Dias rounds the Cape of Good Hope -
Vasco da Gama: spice trade with India, exploration of East Africa -
Portuguese conquer East African Swahili city-states -
Cabral claims Brazil -
 - Spain
Two worlds meet: Christopher Columbus and the Tainos
Bartolomé de las Casas speaks out against enslavement and mistreatment of native peoples
Treaty of Tordesillas between Portugal and Spain
Balboa reaches the Pacific
Magellan crosses the Pacific, one of his ships returns to Spain, making the first round-the-world voyage
 - England and France -
Search for Northwest Passage (review from grade 3) -
Colonies in North America and West Indies -
Trading posts in India -

Note: Briefly review from American History 3: "Early Spanish Exploration and Settlement." Also, see above, II.C, Spanish Conquerors.

Note: Briefly review from American History 3: search for Northwest Passage. You may also want to introduce other explorers, such as Verrazano and Cartier.

- Holland (The Netherlands)
 - The Dutch take over Portuguese trade routes and colonies in Africa and the East Indies
 - The Dutch in South Africa, Cape Town
 - The Dutch in North America: New Netherland (review from grade 3), later lost to England

C. TRADE AND SLAVERY

- The sugar trade
 - African slaves on Portuguese sugar plantations on islands off West African coast, such as São Tomé
 - Sugar plantations on Caribbean islands
 - West Indies: Cuba, Puerto Rico, Bahamas, Dominican Republic, Haiti, Jamaica
- Transatlantic slave trade: the “triangular trade” from Europe to Africa to colonies in the Caribbean and the Americas
 - The “Slave Coast” in West Africa
 - The Middle Passage

IV. The Renaissance and the Reformation

A. THE RENAISSANCE

- Islamic scholars translate Greek works and so help preserve classical civilization.
- A “rebirth” of ideas from ancient Greece and Rome
- New trade and new wealth
- Italian city states: Venice, Florence, Rome
- Patrons of the arts and learning
 - The Medici Family and Florence
 - The Popes and Rome
- Leonardo da Vinci, Michelangelo
- Renaissance ideals and values as embodied in
 - The Courtier* by Castiglione: the “Renaissance man”
 - The Prince* by Machiavelli: real-world politics

B. THE REFORMATION

- Gutenberg’s printing press: the Bible made widely available
- The Protestant Reformation
 - Martin Luther and the 95 Theses
 - John Calvin
- The Counter-Reformation
- Copernicus and Galileo: Conflicts between science and the church
 - Ptolemaic (earth-centered) vs. sun-centered models of the universe

V. England from the Golden Age to the Glorious Revolution

A. ENGLAND IN THE GOLDEN AGE

- Henry VIII and the Church of England
- Elizabeth I
- British naval dominance
 - Defeat of the Spanish Armada
 - Sir Francis Drake
 - British exploration and North American settlements

See also Visual Arts 5: The Art of the Renaissance; and Language Arts 5: Shakespeare, *A Midsummer Night’s Dream*; Cervantes, *Don Quixote*.

See also Language Arts 5: Shakespeare.

B. FROM THE ENGLISH REVOLUTION TO THE GLORIOUS REVOLUTION

- The English Revolution
 - King Charles I, Puritans and Parliament
 - Civil War: Cavaliers and Roundheads
 - Execution of Charles I
 - Oliver Cromwell and the Puritan regime
 - The Restoration (1660): Charles II restored to the English throne, many Puritans leave England for America
- The “Glorious Revolution” (also called the Bloodless Revolution)
 - King James II replaced by William and Mary
 - Bill of Rights: Parliament limits the power of the monarchy

VI. Russia: Early Growth and Expansion

A. GEOGRAPHY

- Moscow and St. Petersburg
- Ural Mountains, Siberia, steppes
- Volga and Don Rivers
- Black, Caspian, and Baltic Seas
- Search for a warm-water port

B. HISTORY AND CULTURE

- Russia as successor to Byzantine Empire: Moscow as new center of Eastern Orthodox Church and of Byzantine culture (after the fall of Constantinople in 1453)
- Ivan III (the Great), czar (from the Latin “Caesar”)
- Ivan IV (the Terrible)
- Peter the Great: modernizing and “Westernizing” Russia
- Catherine the Great
 - Reforms of Peter and Catherine make life even harder for peasants

VII. Feudal Japan

A. GEOGRAPHY

- Pacific Ocean, Sea of Japan
- Four main islands: Hokkaido, Honshu (largest), Shikoku, Kyushu
- Tokyo
- Typhoons, earthquakes
- The Pacific Rim

B. HISTORY AND CULTURE

- Emperor as nominal leader, but real power in the hands of shoguns
- Samurai, code of Bushido
- Rigid class system in feudal Japanese society
- Japan closed to outsiders
- Religion
 - Buddhism: the four Noble Truths and the Eightfold Path, Nirvana
 - Shintoism: reverence for ancestors, reverence for nature, *kami*

See also Language Arts 5:
“A Tale of the Oki Islands.”

Note: Review from grade 2:
Buddhism’s origins in India,
spread throughout Asia.

American History and Geography



Note: Fifth grade students who have been through earlier grades of the *Core Knowledge Sequence* have been introduced to exploration and pioneers in grades 1 and 2.

AMERICAN HISTORY AND GEOGRAPHY

I. Westward Expansion

Teachers: Guidelines for the study of Westward Expansion are divided into two parts, with part A focusing on the decades before the Civil War, and part B focusing on the years after the Civil War. You may wish to plan a single unit on Westward Expansion, or divide your studies with a unit on the Civil War (see II below).

A. WESTWARD EXPANSION BEFORE THE CIVIL WAR

- Geography
 - Rivers: James, Hudson, St. Lawrence, Mississippi, Missouri, Ohio, Columbia, Rio Grande
 - Erie Canal connecting the Hudson River and Lake Erie
 - Appalachian and Rocky Mountains
 - Continental Divide and the flow of rivers: east of Rockies to the Arctic or Atlantic Oceans, west of Rockies to the Pacific Ocean
 - Great Plains stretching from Canada to Mexico -
- Early exploration of the west
 - Daniel Boone, Cumberland Gap, Wilderness Trail -
 - Lewis and Clark, Sacagawea -
 - “Mountain men,” fur trade -
 - Zebulon Pike, Pike’s Peak -
- Pioneers
 - Getting there in wagon trains, flatboats, steamboats
 - Many pioneers set out from St. Louis (where the Missouri and Mississippi Rivers meet).
 - Land routes: Santa Fe Trail and Oregon Trail
 - Mormons (Latter-day Saints) settle in Utah, Brigham Young, Great Salt Lake
 - Gold Rush, ’49ers
- Native American resistance
 - More and more settlers move onto Native American lands, treaties made and broken
 - Tecumseh (Shawnee): attempted to unite tribes in defending their land
 - Battle of Tippecanoe
 - Osceola, Seminole leader
- “Manifest Destiny” and conflict with Mexico
 - The meaning of “manifest destiny”
 - Early settlement of Texas: Stephen Austin
 - General Antonio Lopez de Santa Anna
 - Battle of the Alamo (“Remember the Alamo”), Davy Crockett, Jim Bowie
- The Mexican-American War
 - General Zachary Taylor (“Old Rough and Ready”)
 - Some Americans strongly oppose the war, Henry David Thoreau’s “Civil Disobedience”
 - Mexican lands ceded to the United States (California, Nevada, Utah, parts of Colorado, New Mexico, Arizona)

B. WESTWARD EXPANSION AFTER THE CIVIL WAR

- Homestead Act (1862), many thousands of Americans and immigrants start farms in the West
- “Go west, young man” (Horace Greeley’s advice)
- Railroads, Transcontinental Railroad links east and west, immigrant labor
- Cowboys, cattle drives
- The “wild west,” reality versus legend: Billy the Kid, Jesse James, Annie Oakley, Buffalo Bill
- “Buffalo Soldiers,” African American troops in the West
- U. S. purchases Alaska from Russia, “Seward’s folly”
- 1890: the closing of the American frontier (as acknowledged in the U. S. Census), the symbolic significance of the frontier

See also Language Arts 5:
*Narrative of the Life of
Frederick Douglass.*

See also Language Arts /
Music 5: "The Battle Hymn
of the Republic"; and
Language Arts 5: Gettysburg
Address.

Note: Those who wish to
examine other battles may
want to include Vicksburg
(and Lincoln's famous words,
"The Father of Waters again
goes unvexed to the sea")
and the Battle of Mobile
Bay (with Admiral David
Farragut's famous words,
"Damn the torpedoes, full
speed ahead!").

See also Language Arts 5:
Walt Whitman's poem "O
Captain! My Captain!" re
the assassination of Lincoln.

See also Language Arts 5:
American Indian trickster
myths; and, Chief Joseph, "I
will fight no more forever."

II. The Civil War: Causes, Conflicts, Consequences

A. TOWARD THE CIVIL WAR

- Abolitionists: William Lloyd Garrison and *The Liberator*, Frederick Douglass
- Slave life and rebellions
- Industrial North versus agricultural South
- Mason-Dixon Line
- Controversy over whether to allow slavery in territories and new states
Missouri Compromise of 1820
Dred Scott decision allows slavery in the territories
- Importance of Harriet Beecher Stowe's *Uncle Tom's Cabin*
- John Brown, Harper's Ferry
- Lincoln: "A house divided against itself cannot stand." -
Lincoln-Douglas debates -
Lincoln elected president, Southern states secede -

B. THE CIVIL WAR

- Fort Sumter
- Confederacy, Jefferson Davis
- Yankees and Rebels, Blue and Gray
- First Battle of Bull Run
- Robert E. Lee and Ulysses S. Grant
- General Stonewall Jackson
- Ironclad ships, battle of the USS *Monitor* and the CSS *Virginia* (formerly the
USS *Merrimack*)
- Battle of Antietam Creek
- The Emancipation Proclamation
- Gettysburg and the Gettysburg Address
- African-American troops, Massachusetts Regiment led by Colonel Shaw
- Sherman's march to the sea, burning of Atlanta
- Lincoln re-elected, concluding words of the Second Inaugural Address ("With malice
toward none, with charity for all. . .")
- Richmond (Confederate capital) falls to Union forces
- Surrender at Appomattox
- Assassination of Lincoln by John Wilkes Booth

C. RECONSTRUCTION

- The South in ruins
- Struggle for control of the South, Radical Republicans vs. Andrew Johnson,
impeachment
- Carpetbaggers and scalawags
- Freedmen's Bureau, "40 acres and a mule"
- 13th, 14th, and 15th Amendments to the Constitution
- Black Codes, the Ku Klux Klan and "vigilante justice"
- End of Reconstruction, Compromise of 1877, all federal troops removed from the South

III. Native Americans: Cultures and Conflicts

A. CULTURE AND LIFE

- Great Basin (for example, Nez Perce)
- Plateau (for example, Shoshone and Ute)
- Plains (for example, Arapaho, Cheyenne, Lakota [Sioux], Blackfeet, Crow)
Extermination of buffalo (review from grade 2)
- Pacific Northwest (for example, Chinook, Kwakiutl, Yakima)

B. AMERICAN GOVERNMENT POLICIES

- Bureau of Indian Affairs
- Forced removal to reservations
- Attempts to break down tribal life, assimilation policies, Carlisle School

C. CONFLICTS

- Sand Creek Massacre
- Little Big Horn: Crazy Horse, Sitting Bull, Custer's Last Stand
- Wounded Knee -
Ghost Dance -

IV. U. S. Geography

- Locate: Western Hemisphere, North America, Caribbean Sea, Gulf of Mexico
- The Gulf Stream, how it affects climate
- Regions and their characteristics: New England, Mid-Atlantic, South, Midwest, Great Plains, Southwest, West, Pacific Northwest
- Fifty states and capitals

Visual Arts: Grade 5

SEE INTRODUCTION, “The Arts in the Curriculum.”

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

In studying the works of art specified below, and in creating their own art, students should review, develop, and apply concepts introduced in previous grades, such as line, shape, form, space, texture, color, light, design, and symmetry.

I. Art of the Renaissance

Teachers: Study of the following artists and works of art may be integrated with study of related topics in World History 5: The Renaissance.

- The shift in world view from medieval to Renaissance art, a new emphasis on humanity and the natural world
- The influence of Greek and Roman art on Renaissance artists (classical subject matter, idealization of human form, balance and proportion)
- The development of linear perspective during the Italian Renaissance
 - The vantage point or point-of-view of the viewer
 - Convergence of lines toward a vanishing point, the horizon line
- Observe and discuss works in different genres—such as portrait, fresco, Madonna—by Italian Renaissance artists, including
 - Sandro Botticelli, *The Birth of Venus*
 - Leonardo da Vinci: *The Proportions of Man*, *Mona Lisa*, *The Last Supper*
 - Michelangelo, Ceiling of the Sistine Chapel, especially the detail known as *The Creation of Adam*
 - Raphael: *The Marriage of the Virgin*, examples of his Madonnas (such as *Madonna and Child with the Infant St. John*, *The Alba Madonna*, or *The Small Cowper Madonna*)
- Become familiar with Renaissance sculpture, including -
 - Donatello, *Saint George*
 - Michelangelo, *David*
- Become familiar with Renaissance architecture, including -
 - The Florence Cathedral, dome designed by Filippo Brunelleschi -
 - St. Peter’s in Rome -
- Observe and discuss paintings of the Northern Renaissance, including
 - Pieter Bruegel, *Peasant Wedding*
 - Albrecht Dürer, *Self-Portrait* (such as from 1498 or 1500)
 - Jan van Eyck, *Giovanni Arnolfini and His Wife* (also known as *Arnolfini Wedding*)

II. American Art: Nineteenth-Century United States

- Become familiar with the Hudson River School of landscape painting, including
 - Thomas Cole, *The Oxbow* (*The Connecticut River Near Northampton*) (also known as *View from Mount Holyoke, Northampton, Massachusetts, after a Thunderstorm*)
 - Albert Bierstadt, *Rocky Mountains, Lander’s Peak*
- Become familiar with genre paintings, including -
 - George Caleb Bingham, *Fur Traders Descending the Missouri*
 - William Sidney Mount, *Eel Spearing at Setauket*

Note: When you study perspective, review from grade 3 foreground, middle ground, and background; and, for contrast, examine paintings that do not attempt to create an illusion of depth, for example, *Madonna and Child on a Curved Throne* (see Visual Arts 4: Art of the Middle Ages).

See also American History 5: Civil War, *re* photographs by Brady; and African American troops in the Civil War: Shaw and the Massachusetts 54th, *re* Saint-Gaudens's *Shaw Memorial*.

See also World History 5: Feudal Japan.

- Become familiar with art related to the Civil War, including Civil War photography of Mathew Brady and his colleagues *The Shaw Memorial* sculpture of Augustus Saint-Gaudens
- Become familiar with popular prints by Currier and Ives.

III. Art of Japan

- Become familiar with
The Great Buddha (also known as the Kamakura Buddha)
Landscape gardens

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.







The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).





I. Elements of Music

- Through participation, become familiar with basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
Recognize a steady beat, accents, and the downbeat; play a steady beat, a simple rhythm pattern, simultaneous rhythm patterns, and syncopation patterns.
Discriminate between fast and slow; gradually slowing down and getting faster; *accelerando* and *ritardando*.
Discriminate between differences in pitch: high and low.
Discriminate between loud and soft; gradually increasing and decreasing volume; *crescendo* and *decrescendo*.
Understand *legato* (smoothly flowing progression of notes) and *staccato* (crisp, distinct notes).
Sing unaccompanied, accompanied, and in unison.
Recognize harmony; sing rounds and canons; two- and three-part singing.
Recognize introduction, interlude, and coda in musical selections.
Recognize verse and refrain.
Continue work with timbre and phrasing.
Recognize theme and variations.
Sing or play simple melodies while reading scores.


- Understand the following notation and terms:

names of lines and spaces in the treble clef; middle C



 treble clef,  staff,  bar line,  double bar line,  measure,  repeat signs

 whole note  half note  quarter note  eighth note

whole rest, half rest, quarter rest, eighth rest

 grouped sixteenth notes

tied notes and dotted notes

 sharps  flats

Da capo [*DC*] *al fine*

meter signature $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ or common time $\frac{2}{4}$ $\frac{3}{4}$ $\frac{6}{8}$

soft *pp* *p* *mp* loud *mf* *f* *ff*

II. Listening and Understanding

Teachers: Expose children to a wide range of music, including children's music, popular instrumental music, and music from various cultures.

Note: Children were introduced to Beethoven in grade 2.

See also below, Songs, "Greensleeves"; and see World History 5: The Renaissance.

See also Language Arts 5: Shakespeare's *A Midsummer Night's Dream*.

Note: Spirituals introduced in earlier grades include "Swing Low, Sweet Chariot," "He's Got the Whole World in His Hands," and "This Little Light of Mine."

See also above, III. American Musical Traditions, Spirituals.

See also American History 5: Civil War, re "Battle Hymn of the Republic." Also, you may wish to recall songs from grade 2: "Dixie," "Follow the Drinking Gourd," and "When Johnny Comes Marching Home."

A. COMPOSERS AND THEIR MUSIC

Teachers: Provide brief, child-friendly biographical profiles of the following composers, and listen to representative works:

- Ludwig van Beethoven, *Symphony No. 5*
- Modest Mussorgsky, *Pictures at an Exhibition* (as orchestrated by Ravel)

B. MUSICAL CONNECTIONS

Teachers: Introduce children to the following works in connection with topics in other disciplines:

- Music from the Renaissance (such as choral works of Josquin Desprez; lute songs by John Dowland)
- Felix Mendelssohn, Overture, Scherzo, and Wedding March from *A Midsummer Night's Dream*

III. American Musical Traditions

- Spirituals
Originated by African-Americans, many spirituals go back to the days of slavery. Familiar spirituals, such as:
Down by the Riverside -
Sometimes I Feel Like a Motherless Child -
Wayfaring Stranger -
We Shall Overcome -

IV. Songs

Battle Hymn of the Republic -
Danny Boy -
Dona Nobis Pacem (round) -
Git Along Little Dogies -
God Bless America -
Greensleeves -
The Happy Wanderer -
Havah Nagilah -
If I Had a Hammer -
Red River Valley -
Sakura -
Shenandoah -
Sweet Betsy from Pike -

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving “higher order” skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.

I. Numbers and Number Sense

- Read and write numbers (in digits and words) up to the billions.
- Recognize place value up to billions.
- Order and compare numbers to 999,999,999 using the signs $<$, $>$, and $=$.
- Write numbers in expanded form.
- Integers -
 - Locate positive and negative integers on a number line. -
 - Compare integers using the symbols $<$, $>$, $=$. -
 - Know that the sum of an integer and its opposite is 0. -
 - Add and subtract positive and negative integers. -
- Using a number line, locate positive and negative whole numbers.
- Round to the nearest ten; to the nearest hundred; to the nearest thousand; to the nearest hundred thousand.
- Exponents
 - Review perfect squares and square roots to 144; recognize the square root sign, $\sqrt{\quad}$.
 - Using the terms *squared* and *cubed* and *to the n th power*, read and evaluate numerical expressions with exponents. -
 - Identify the powers of ten up to 10^6 . -
- Identify a set and the members of a set, as indicated by $\{ \}$.
- Identify numbers under 100 as prime or composite.
- Identify prime factors of numbers to 100 and write using exponential notation for multiple primes.
- Determine the greatest common factor (GCF) of given numbers.
- Determine the least common multiple (LCM) of given numbers.

II. Ratio and Percent

A. RATIO

- Determine and express simple ratios.
- Use ratio to create a simple scale drawing.
- Ratio and rate: solve problems on speed as a ratio, using the formula -
 $S = D/T$ (or $D = R \times T$). -

B. PERCENT

- Recognize the percent sign (%) and understand percent as “per hundred.”
- Express equivalences between fractions, decimals, and percents, and know common equivalences:
 - $\frac{1}{10} = 10\%$
 - $\frac{1}{4} = 25\%$
 - $\frac{1}{2} = 50\%$
 - $\frac{3}{4} = 75\%$ -
- Find the given percent of a number.

III. Fractions and Decimals

A. FRACTIONS

- Determine the least common denominator (LCD) of fractions with unlike denominators.
- Recognize equivalent fractions (for example, $\frac{1}{2} = \frac{3}{6}$).
- Put fractions in lowest terms.
- Compare fractions with like and unlike denominators, using the signs $<$, $>$, and $=$.
- Identify the reciprocal of a given fraction; know that the product of a given number and its reciprocal = 1.
- Add and subtract mixed numbers and fractions with like and unlike denominators.
- Multiply and divide fractions.
- Add and subtract fractions with like and unlike denominators.
- Add and subtract mixed numbers and fractions; multiply mixed numbers and fractions.
- Round fractions to the nearest whole number.
- Write fractions as decimals (e.g., $\frac{1}{4} = 0.25$; $\frac{17}{25} = 0.68$; $\frac{1}{3} = 0.3333 \dots$ or 0.33, rounded to the nearest hundredth).

B. DECIMALS

- Read, write, and order decimals to the nearest ten-thousandth.
- Write decimals in expanded form.
- Read and write decimals on a number line.
- Round decimals (and decimal quotients) to the nearest tenth; to the nearest hundredth; to the nearest thousandth.
- Estimate decimal sums, differences, and products by rounding.
- Add and subtract decimals through ten-thousandths.
- Multiply decimals: by 10, 100, and 1,000; by another decimal.
- Divide decimals by whole numbers and decimals.

IV. Computation

A. ADDITION

- Commutative and associative properties: know the names and understand the properties.

B. MULTIPLICATION

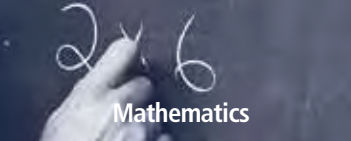
- Commutative, associative, and distributive properties: know the names and understand the properties.
- Multiply two factors of up to four digits each.
- Write numbers in expanded form using multiplication.
- Estimate a product.
- Use mental computation strategies for multiplication, such as breaking a problem into partial products, for example: $3 \times 27 = (3 \times 20) + (3 \times 7) = 60 + 21 = 81$.
- Solve word problems involving multiplication.

C. DIVISION

- Understand multiplication and division as inverse operations.
- Know what it means for one number to be “divisible” by another number.
- Know that you cannot divide by 0; that any number divided by 1 = that number.
- Estimate the quotient.
- Know how to move the decimal point when dividing by 10, 100, or 1,000.
- Divide dividends up to four digits by one-digit, two-digit, and three-digit divisors.
- Solve division problems with remainders; round a repeating decimal quotient.
- Check division by multiplying (and adding remainder).

D. SOLVING PROBLEMS AND EQUATIONS

- Solve word problems with multiple steps.
- Solve problems with more than one operation.



V. Measurement

Teachers: Review and reinforce as necessary from grade 4 topics on linear measure, weight, and capacity (volume). Also review various equivalences, which students should be able to recall from memory.

- Convert to common units in problems involving addition and subtraction of different units.
- Time: Solve problems on elapsed time; regroup when multiplying and dividing amounts of time.

VI. Geometry

- Identify and draw points, segments, rays, lines.
- Identify and draw lines: horizontal; vertical; perpendicular; parallel; intersecting.
- Measure the degrees in angles, and know that
 - right angle = 90°
 - obtuse angle: greater than 90°
 - acute angle: less than 90°
 - straight angle = 180°
- Identify and construct different kinds of triangles: equilateral, right, and isosceles.
- Know what it means for triangles to be congruent.
- Identify polygons:
 - triangle, quadrilateral, pentagon, hexagon, and octagon
 - parallelogram, trapezoid, rhombus, rectangle, square
- Know that regular polygons have sides of equal length and angles of equal measure.
- Identify and draw diagonals of polygons.
- Circles
 - Identify arc, chord, radius (plural: radii), and diameter (radius = $\frac{1}{2}$ diameter).
 - Using a compass, draw circles with a given diameter or radius.
 - Find the circumference of a circle using the formulas $C = \pi d$, and $C = 2 \pi r$, using 3.14 as the value of π .
- Area
 - Review the formula for the area of a rectangle (Area = length x width) and solve problems involving finding area in a variety of square units (such as mi^2 ; yd^2 ; ft^2 ; in^2 ; km^2 ; m^2 ; cm^2 ; mm^2).
 - Find the area of triangles, using the formula $A = \frac{1}{2}(b \times h)$.
 - Find the area of a parallelogram using the formula $A = b \times h$.
 - Find the area of an irregular figure (such as a trapezoid) by dividing into regular figures for which you know how to find the area.
 - Compute volume of rectangular prisms in cubic units (cm^3 , in^3), using the formula $V = l \times w \times h$.
 - Find the surface area of a rectangular prism.

VII. Probability and Statistics

- Understand probability as a measure of the likelihood that an event will happen; using simple models, express probability of a given event as a fraction, as a percent, and as a decimal between 0 and 1.
- Collect and organize data in graphic form (bar, line, and circle graphs).
- Solve problems requiring interpretation and application of graphically displayed data.
- Find the average (mean) of a given set of numbers.
- Plot points on a coordinate plane, using ordered pairs of positive and negative whole numbers.
- Graph simple functions.

VIII. Pre-Algebra

- Recognize variables and solve basic equations using variables.
- Write and solve equations for word problems.
- Find the value of an expression given the replacement values for the variables, for example: What is $7 - c$ if c is 3.5?

Science: Grade 5

Teachers: Effective instruction in science requires hands-on experience and observation. In the words of the 1993 report from the American Association for the Advancement of Science, Benchmarks for Science Literacy, "From their very first day in school, students should be actively engaged in learning to view the world scientifically. That means encouraging them to ask questions about nature and to seek answers, collect things, count and measure things, make qualitative observations, organize collections and observations, discuss findings, etc."

While experience counts for much, book learning is also important, for it helps bring coherence and order to a child's scientific knowledge. Only when topics are presented systematically and clearly can children make steady and secure progress in their scientific learning. The child's development of scientific knowledge and understanding is in some ways a very disorderly and complex process, different for each child. But a systematic approach to the exploration of science, one that combines experience with book learning, can help provide essential building blocks for deeper understanding at a later time.

I. Classifying Living Things

Teachers: As the children study animal classification, discuss: Why do we classify? How does classification help us understand the natural world?

- Scientists have divided living things into five large groups called kingdoms, as follows:
 - Plant
 - Animal
 - Fungus (mushrooms, yeast, mold, mildew)
 - Protist (algae, protozoans, amoeba, euglena)
 - Moneran, also called Prokaryote (bacteria, blue-green algae/cyano bacteria)
- Each kingdom is divided into smaller groupings as follows: -
 - Kingdom -
 - Phylum -
 - Class -
 - Order -
 - Family -
 - Genus -
 - Species
 - (Variety)
- When classifying living things, scientists use special names made up of Latin words (or words made to sound like Latin words), which help scientists around the world understand each other and ensure that they are using the same names for the same living things.
 - Homo sapiens*: the scientific name for the species to which human beings belong (genus *Homo*, species *sapiens*)
 - Taxonomists: biologists who specialize in classification
- Different classes of vertebrates and major characteristics: fish, amphibians, reptiles, birds, mammals (review from grade 3)

Teachers: Introduce an example of how an animal is classified, in order for students to become familiar with the system of classification, not to memorize specific names. For example, a collie dog is classified as follows:

Kingdom: Animalia -
 Phylum: Chordata (Subphylum: Vertebrata) -
 Class: Mammalia (mammal) -
 Order: Carnivora (eats meat) -

Note: A useful mnemonic device is "King Philip Came Over For Good Spaghetti."



Family: Canidae (a group with doglike characteristics) -
Genus: *Canis* (a coyote, wolf, or dog) -
Species: *familiaris* (a domestic dog) -
Variety: Collie -

II. Cells: Structures and Processes

Note: Students will study cell division in more detail, including the processes of mitosis and meiosis, in grade 7.

See below, III. B, Photosynthesis re plant cells.

- All living things are made up of cells.
- Structure of cells (both plant and animal)
 - Cell membrane: selectively allows substances in and out
 - Nucleus: surrounded by nuclear membrane, contains genetic material, divides for reproduction
 - Cytoplasm contains organelles, small structures that carry out the chemical activities of the cell, including mitochondria (which produce the cell's energy) and vacuoles (which store food, water, or wastes).
- Plant cells, unlike animal cells, have cell walls and chloroplasts.
- Cells without nuclei: monerans (bacteria)
- Some organisms consist of only a single cell: for example, amoeba, protozoans, some algae.
- Cells are shaped differently in order to perform different functions.
- Organization of cells into tissues, organs, and systems:
 - In complex organisms, groups of cells form tissues (for example, in animals, skin tissue or muscle tissue; in plants, the skin of an onion or the bark of a tree).
 - Tissues with similar functions form organs (for example, in some animals, the heart, stomach, or brain; in some plants, the root or flower).
 - In complex organisms, organs work together in a system (recall, for example, from earlier studies of the human body, the digestive, circulatory, and respiratory systems).

III. Plant Structures and Processes

A. STRUCTURE: NON-VASCULAR AND VASCULAR PLANTS

- Non-vascular plants (for example, algae)
- Vascular plants
 - Vascular plants have tubelike structures that allow water and dissolved nutrients to move through the plant.
 - Parts and functions of vascular plants: roots, stems and buds, leaves

B. PHOTOSYNTHESIS

- Photosynthesis is an important life process that occurs in plant cells, but not animal cells (photo = light; synthesis = putting together). Unlike animals, plants make their own food, through the process of photosynthesis.
- Role in photosynthesis of: energy from sunlight, chlorophyll, carbon dioxide and water, xylem and phloem, stomata, oxygen, sugar (glucose)

C. REPRODUCTION

- Asexual reproduction
 - Example of algae
 - Vegetative reproduction: runners (for example, strawberries) and bulbs (for example, onions), growing plants from eyes, buds, leaves, roots, and stems
- Sexual reproduction by spore-bearing plants (for example, mosses and ferns)
- Sexual reproduction of non-flowering seed plants: conifers (for example, pines), male and female cones, wind pollination
- Sexual reproduction of flowering plants (for example, peas)
 - Functions of sepals and petals, stamen (male), anther, pistil (female), ovary (or ovule)

See below, IV. Life Cycles and Reproduction: asexual and sexual reproduction.

Process of seed and fruit production: pollen, wind, insect and bird pollination, fertilization, growth of ovary, mature fruit

Seed germination and plant growth: seed coat, embryo and endosperm, germination (sprouting of new plant), monocots (for example, corn) and dicots (for example, beans)

IV. Life Cycles and Reproduction

A. THE LIFE CYCLE AND REPRODUCTION

- Life cycle: development of an organism from birth to growth, reproduction, death
Example: Growth stages of a human: embryo, fetus, newborn, infancy, childhood, adolescence, adulthood, old age
- All living things reproduce themselves. Reproduction may be asexual or sexual.
Examples of asexual reproduction: fission (splitting) of bacteria, spores from mildews, molds, and mushrooms, budding of yeast cells, regeneration and cloning
Sexual reproduction requires the joining of special male and female cells, called gametes, to form a fertilized egg.

B. SEXUAL REPRODUCTION IN ANIMALS

- Reproductive organs: testes (sperm) and ovaries (eggs)
- External fertilization: spawning
- Internal fertilization: birds, mammals
- Development of the embryo: egg, zygote, embryo, growth in uterus, fetus, newborn

V. The Human Body

A. CHANGES IN HUMAN ADOLESCENCE

- Puberty
Glands and hormones (see below, Endocrine System), growth spurt, hair growth, breasts, voice change

B. THE ENDOCRINE SYSTEM

- The human body has two types of glands: duct glands (such as the salivary glands), and ductless glands, also known as endocrine glands.
- Endocrine glands secrete (give off) chemicals called hormones. Different hormones control different body processes.
- Pituitary gland: located at the bottom of the brain; secretes hormones that control other glands, and hormones that regulate growth
- Thyroid gland: located below the voice box; secretes a hormone that controls the rate at which the body burns and uses food
- Pancreas: both a duct and ductless gland; secretes a hormone called insulin that regulates how the body uses and stores sugar; when the pancreas does not produce enough insulin, a person has a sickness called diabetes (which can be controlled)
- Adrenal glands: secrete a hormone called adrenaline, especially when a person is frightened or angry, causing rapid heartbeat and breathing

C. THE REPRODUCTIVE SYSTEM

- Females: ovaries, fallopian tubes, uterus, vagina, menstruation
- Males: testes, scrotum, penis, urethra, semen
- Sexual reproduction: intercourse, fertilization, zygote, implantation of zygote in the uterus, pregnancy, embryo, fetus, newborn

Note: There is some flexibility in the grade-level placement of the study of topics relating to human reproduction, as different schools and districts have differing local requirements, typically introducing these topics in either fifth or sixth grade.



VI. Chemistry: Matter and Change

A. ATOMS, MOLECULES, AND COMPOUNDS

- Basics of atomic structure: nucleus, protons (positive charge), neutrons (neutral), electrons (negative charge)
- Atoms are constantly in motion, electrons move around the nucleus in paths called shells (or energy levels).
- Atoms may join together to form molecules and compounds.
- Common compounds and their formulas: -
water H_2O
salt NaCl -
carbon dioxide CO_2 -

B. ELEMENTS

- Elements have atoms of only one kind, having the same number of protons. There are a little more than 100 different elements.
- The Periodic Table: organizes elements with common properties -
Atomic symbol and atomic number -
- Some well-known elements and their symbols: -
Hydrogen H -
Helium He -
Carbon C -
Nitrogen N -
Oxygen O -
Sodium Na -
Aluminum Al -
Silicon Si -
Chlorine Cl -
Iron Fe -
Copper Cu -
Silver Ag -
Gold Au -
- Two important categories of elements: metals and non-metals
Metals comprise about $\frac{2}{3}$ of the known elements.
Properties of metals: most are shiny, ductile, malleable, conductive

C. CHEMICAL AND PHYSICAL CHANGE

- Chemical change changes what a molecule is made up of and results in a new substance with a new molecular structure. Examples of chemical change: rusting of iron, burning of wood, milk turning sour
- Physical change changes only the properties or appearance of the substance, but does not change what the substance is made up of. Examples of physical change: cutting wood or paper, breaking glass, freezing water

Note: Students will examine the relation between the periodic table and atomic structure in more detail in grade 7.

Note: Qualitative description and investigation of chemical change is sufficient at this grade level.

See also World History 5: The Renaissance, *re* Galileo. See above, Classifying Living Things, *re* Linnaeus; Cells, *re* Ernest Just; Human Body—Endocrine System (Hormones), *re* Percy Lavon Julian.

VII. Science Biographies

Galileo (“Father of modern science” who provided scientific support for Copernicus’s sun-centered universe)
Percy Lavon Julian (biologist and inventor who developed synthetic cortisone to treat arthritis pain)
Ernest Just (biologist and medical pioneer who specialized in studying cells and reproduction in marine animals)
Carl Linnaeus (botanist and “Father of taxonomy” who standardized the classification system)

Grade 6



Overview of Topics

Grade 6

English

- I. Writing, Grammar, and Usage
 - A. Writing and Research
 - B. Speaking and Listening
 - C. Grammar and Usage
 - D. Spelling
 - E. Vocabulary
- II. Poetry
 - A. Poems
 - B. Terms
- III. Fiction and Drama
 - A. Stories
 - B. Drama
 - C. Classical Mythology
 - D. Literary Terms
- IV. Sayings and Phrases

History and Geography

World:

- I. World Geography
 - A. Spatial Sense
 - B. Great Deserts of the World
- II. Lasting Ideas from Ancient Civilizations
 - A. Judaism and Christianity
 - B. Ancient Greece
 - C. Ancient Rome
- III. The Enlightenment
- IV. The French Revolution
- V. Romanticism
- VI. Industrialism, Capitalism, and Socialism
 - A. The Industrial Revolution
 - B. Capitalism
 - C. Socialism
- VII. Latin American Independence Movements
 - A. History
 - B. Geography of Latin America

American:

- I. Immigration, Industrialization, and Urbanization
 - A. Immigration
 - B. Industrialization and Urbanization
- II. Reform

Visual Arts

- I. Art History: Periods and Schools
 - A. Classical Art: The Art of Ancient Greece and Rome
 - B. Gothic Art
 - C. The Renaissance
 - D. Baroque
 - E. Rococo
 - F. Neoclassical
 - G. Romantic
 - H. Realism

Music

- I. Elements of Music
- II. Classical Music: From Baroque to Romantic
 - A. Baroque
 - B. Classical
 - C. Romantic

Mathematics

- I. Numbers and Number Sense
- II. Ratio, Percent, and Proportion
 - A. Ratio and Proportion
 - B. Percent
- III. Computation
 - A. Addition
 - B. Multiplication
 - C. Division
 - D. Solving Problems and Equations
- IV. Measurement
- V. Geometry
- VI. Probability and Statistics
- VII. Pre-Algebra

Science

- I. Plate Tectonics
- II. Oceans
- III. Astronomy: Gravity, Stars, and Galaxies
- IV. Energy, Heat, and Energy Transfer
 - A. Energy
 - B. Heat
 - C. Physical Change: Energy Transfer
- V. The Human Body: Lymphatic and Immune Systems
- VI. Science Biographies



I. Writing, Grammar, and Usage

Teachers: Students should be given many opportunities for writing, both imaginative and expository, with teacher guidance that strikes a balance between encouraging creativity and requiring correct use of conventions. In sixth grade, it is appropriate to emphasize revision, with the expectation that students will revise and edit to produce (in some cases) a finished product that is thoughtful, well-organized, and reasonably correct in grammar, mechanics, and spelling. Continue imaginative writing but place a stronger emphasis than in previous grades on expository writing, including, for example, summaries, book reports, essays that explain a process, and descriptive essays. Note also the requirement below for writing persuasive essays, a research essay, and a standard business letter.

A. WRITING AND RESEARCH

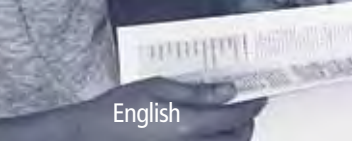
- Learn strategies and conventions for writing a persuasive essay, with attention to
 - defining a thesis (that is, a central proposition, a main idea)
 - supporting the thesis with evidence, examples, and reasoning
 - distinguishing evidence from opinion
 - anticipating and answering counter-arguments
 - maintaining a reasonable tone
- Write a research essay, with attention to
 - asking open-ended questions
 - gathering relevant data through library and field research
 - summarizing, paraphrasing, and quoting accurately when taking notes
 - defining a thesis
 - organizing with an outline
 - integrating quotations from sources
 - acknowledging sources and avoiding plagiarism
 - preparing a bibliography
- Write a standard business letter.

B. SPEAKING AND LISTENING

- Participate civilly and productively in group discussions.
- Give a short speech to the class that is well-organized and well-supported.
- Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.

C. GRAMMAR AND USAGE

- Understand what a complete sentence is, and -
 - identify subject and predicate -
 - identify independent and dependent clauses -
 - correct fragments and run-ons -
- Identify different sentence types, and write for variety by using -
 - simple sentences -
 - compound sentences -
 - complex sentences -
 - compound-complex sentences -
- Correctly use punctuation introduced in earlier grades, and learn how to use a semi-colon or comma with *and*, *but*, or *or* to separate the sentences that form a compound sentence.
- Recognize verbs in active voice and passive voice, and avoid unnecessary use of passive voice.



- Recognize the following troublesome verbs and how to use them correctly:
sit, set
rise, raise
lie, lay
- Correctly use the following:
good / well
between / among
bring / take
accept / except
fewer / less
like / as
affect / effect
who / whom
imply / infer
principle / principal
their / there / they're

D. SPELLING

- Review spelling rules for use of *ie* and *ei*; for adding prefixes and suffixes
- Continue work with spelling, with special attention to commonly misspelled words, including:

acquaintance	develop	naturally	separate
amateur	embarrassed	occurrence	similar
analyze	exaggerate	parallel	sophomore
answer	exercise	peasant	substitute
athlete	fulfill	philosopher	success
Britain	gymnasium	possess	suspicion
characteristic	hypocrite	privilege	tragedy
committee	innocence	receipt	woman
conscious	interrupt	recommendation	writing
cooperate	license	repetition	
criticize	marriage	restaurant	
dependent	minimum	rhythm	

E. VOCABULARY

Teachers: Students should know the meaning of these Latin and Greek words that form common word roots and be able to give examples of English words that are based on them.

Note: More Latin and Greek words and roots are listed in grades 7 and 8. In the listings here, L = Latin, G = Greek. No single form of the Latin or Greek words is consistently used here, but rather the form that is most similar to related English words.

<u>Latin/Greek Word</u>	<u>Meaning</u>	<u>Examples</u>
annus [L]	year	annual, anniversary
ante [L]	before	antebellum, antecedent
aqua [L]	water	aquarium
astron [G]	star	astronaut, astronomy
bi [L]	two	bisect, bipartisan
bios [G]	life	biology, biography
centum [L]	hundred	cent, percent
decem [L]	ten	decade, decimal
dico, dictum [L]	say, thing said	dictation, dictionary
duo [G, L]	two	duplicate
ge [G]	earth	geology, geography
hydor [G]	water	hydrant, hydroelectric
magnus [L]	large, great	magnificent, magnify
mega [G]	large, great	megaphone, megalomania
mikros [G]	small	microscope, microfilm
minus [L]	smaller	diminish, minor
monos [G]	single	monologue, monarch, monopoly

omnis [L]	all	omnipotent, omniscient
phileo [G]	to love	philosophy, philanthropist
phone [G]	sound, voice	phonograph, telephone
photo [from G <i>phos</i>]	light	photograph, photocopy
poly [G]	many	polygon
post [L]	after	posthumous, posterity
pre [L]	before	predict, prepare
primus [L]	first	primary, primitive
protos [G]	first	prototype, protozoa
psyche[G]	soul, mind	psychology
quartus [L]	fourth	quadrant, quarter
tele [G]	at a distance	telephone, television, telepathy
thermos [G]	heat	thermometer, thermostat
tri [G, L]	three	trilogy, triangle
unus [L]	one	unanimous, unilateral
video, visum [L]	see, seen	evident, visual
vita [L]	life	vitality, vitamin

II. Poetry

A. POEMS

Teachers: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose students to more poetry, old and new, and to have students write their own poems. To bring students into the spirit of poetry, read it aloud and encourage them to read it aloud so they can experience the music in the words. At this grade, poetry should be a source of delight, and, upon occasion, the subject of close attention. Students should examine some poems in detail, discussing what the poems mean as well as asking questions about the poet's use of language.

All the world's a stage [from *As You Like It*] (William Shakespeare)

Apostrophe to the Ocean [from *Childe Harold's Pilgrimage*, Canto 4,

Nos. 178-184] (George Gordon Byron)

I Wandered Lonely as a Cloud (William Wordsworth)

If (Rudyard Kipling)

Mother to Son (Langston Hughes)

Lift Ev'ry Voice and Sing (James Weldon Johnson)

A narrow fellow in the grass (Emily Dickinson)

A Psalm of Life (Henry Wadsworth Longfellow)

The Raven (Edgar Allan Poe)

A Song of Greatness (a Chippewa song, trans. Mary Austin)

Stopping by Woods on a Snowy Evening (Robert Frost)

Sympathy (Paul Laurence Dunbar)

There is no frigate like a book (Emily Dickinson)

The Walloping Window-blind (Charles E. Carryl)

Woman Work (Maya Angelou)

B. TERMS

meter

iamb

couplet

rhyme scheme

free verse

See also World History 6:
Romanticism, re "Apostrophe
to the Ocean" and "I
Wandered Lonely as a
Cloud."

See also World History 6:
Ancient Greece, re *The Iliad*
and *The Odyssey*.

See also World History 6:
Ancient Rome, re *Julius*
Caesar.

See also World History 6:
Ancient Greece and Rome.
Students who are not familiar
with classical myths specified
in grades 2 and 3 of the *Core*
Knowledge Sequence should
read those selections as well.

III. Fiction and Drama

Teachers: *The Iliad*, *The Odyssey*, and *Julius Caesar* are available in editions adapted for young readers.

A. STORIES

The Iliad and *The Odyssey* (Homer) -
The Prince and the Pauper (Mark Twain) -

B. DRAMA

Julius Caesar (William Shakespeare)

C. CLASSICAL MYTHOLOGY

Apollo and Daphne -
Orpheus and Eurydice -
Narcissus and Echo -
Pygmalion and Galatea -

D. LITERARY TERMS

- Epic
- Literal and figurative language (review from grade 5) -
imagery -
metaphor and simile -
symbol -
personification -

IV. Sayings and Phrases

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these sayings by hearing them at home and among friends. But the sayings have been one of the categories most appreciated by teachers who work with children from home cultures that differ from the standard culture of literate American English.

All for one and one for all. -
All's well that ends well. -
Bee in your bonnet -
The best-laid plans of mice and men oft go awry. -
A bird in the hand is worth two in the bush. -
Bite the dust -
Catch-as-catch-can -
Don't cut off your nose to spite your face. -
Don't lock the stable door after the horse is stolen. -
Don't look a gift horse in the mouth. -
Eat humble pie -
A fool and his money are soon parted. -
A friend in need is a friend indeed. -
Give the devil his due. -
Good fences make good neighbors. -
He who hesitates is lost. -
He who laughs last laughs best. -
Hitch your wagon to a star. -
If wishes were horses, beggars would ride. -
The leopard doesn't change his spots. -
Little strokes fell great oaks. -
Money is the root of all evil. -

Necessity is the mother of invention. -
It's never over till it's over. -
Nose out of joint -
Nothing will come of nothing. -
Once bitten, twice shy. -
On tenterhooks -
Pot calling the kettle black -
Procrastination is the thief of time. -
The proof of the pudding is in the eating. -
RIP -
The road to hell is paved with good intentions. -
Rome wasn't built in a day. -
Rule of thumb -
A stitch in time saves nine. -
Strike while the iron is hot. -
Tempest in a teapot -
Tenderfoot -
There's more than one way to skin a cat. -
Touché! -
Truth is stranger than fiction. -

History and Geography

History and Geography: Grade 6

Teachers: The World History guidelines for sixth grade begin with a study of ancient civilizations introduced in earlier grades in the *Core Knowledge Sequence*. Topics include Judaism, Christianity, and the civilizations of ancient Greece and Rome. The focus in sixth grade should be on the legacy of enduring ideas from these civilizations—ideas about democracy and government, for example, or about right and wrong. After this study of lasting ideas from ancient civilizations, the World History guidelines pick up the chronological thread from earlier grades with a study of the Enlightenment. You are encouraged to use timelines and engage students in a brief review of some major intervening events in order to help students make a smooth transition across the gap in centuries between the ancient civilizations and the Enlightenment.

In sixth grade, the World History guidelines catch up chronologically with the American History guidelines. The World History guidelines take students up to the consequences of industrialization in the mid-nineteenth century, and this is where the American History guidelines begin.

WORLD HISTORY AND GEOGRAPHY

I. World Geography

Teachers: By sixth grade, children should have a good working knowledge of map-reading skills, as well as geographic terms and features introduced in earlier grades. The study of geography embraces many topics throughout the *Core Knowledge Sequence*, including topics in history and science. Geographic knowledge includes a spatial sense of the world, an awareness of the physical processes that shape life, a sense of the interactions between humans and their environment, an understanding of the relations between place and culture, and an awareness of the characteristics of specific regions and cultures. Many geographic topics are listed below in connection with historical topics.

A. SPATIAL SENSE (Working with Maps, Globes, and Other Geographic Tools)

Teachers: As necessary, review and reinforce topics from earlier grades, including:

- Continents and major oceans
- How to read maps and globes using longitude and latitude, coordinates, degrees
- Tropic of Cancer and Tropic of Capricorn: relation to seasons and temperature
- Climate zones: Arctic, Tropic, Temperate
- Time zones (review from Grade 4): Prime Meridian (0 degrees); Greenwich, England; 180° Line (International Date Line)
- Arctic Circle (imaginary lines and boundaries) and Antarctic Circle

B. GREAT DESERTS OF THE WORLD

- What is a desert? Hot and cold deserts
- Major deserts in -
 - Africa: Sahara, Kalahari -
 - Australia: a mostly desert continent -
 - Asia: Gobi; much of Arabian Peninsula -
 - North America: Mojave, Chihuahuan, Sonoran -
 - South America: Atacama Desert -

Note: In earlier grades, children were introduced to major rivers (see Geography 3), mountains (see Geography 4), and lakes (see Geography 5) of the world.

II. Lasting Ideas from Ancient Civilizations

A. JUDAISM AND CHRISTIANITY

Teachers: Since religion is a shaping force in the story of civilization, the *Core Knowledge Sequence* introduces children in the early grades to major world religions, beginning with a focus on geography and major symbols and figures. Here in the sixth grade the focus is on history, geography, and ideas. The purpose is not to explore matters of theology but to understand the place of religion and religious ideas in history. The goal is to familiarize, not proselytize; to be descriptive, not prescriptive. The tone should be one of respect and balance: no religion should be disparaged by implying that it is a thing of the past.

A review of major religions introduced in earlier grades in the *Core Knowledge Sequence* is recommended: Judaism/Christianity/Islam (grade 1), Hinduism/Buddhism (grade 2), Islam (grade 4), and Buddhism/Shintoism (grade 5).

- Basic ideas in common -
 - The nature of God and of humanity -
 - Hebrew Bible and Old Testament of Christian Bible -
- Judaism: central ideas and moral teachings -
 - Torah, monotheism -
 - The idea of a “covenant” between God and man -
 - Concepts of law, justice, and social responsibility: the Ten Commandments -
- Christianity: central ideas and moral teachings
 - New Testament
 - The Sermon on the Mount and the two “great commandments” (Matthew 22: 37-40)
- Geography of the Middle East -
 - Birthplace of major world religions: Judaism, Christianity, Islam -
 - Anatolian Peninsula, Arabian Peninsula -
 - Mesopotamia, Tigris and Euphrates Rivers -
 - Atlas Mountains, Taurus Mountains -
 - Mediterranean Sea, Red Sea, Black Sea, Arabian Sea, Persian Gulf -
 - The “silk road” -
 - Climate and terrain: vast deserts (Sahara, Arabian) -

Note: Students will examine the political and physical geography of the present-day Middle East in grade 8.

See also English 6: Homer, *The Iliad* and *The Odyssey* and Classical Mythology.

B. ANCIENT GREECE

Teachers: Briefly review from grade 2: religion, art, architecture, daily life of ancient Greece.

- The Greek polis (city-state) and patriotism
- Beginnings of democratic government: Modern American democratic government has its roots in Athenian democracy (despite the obvious limitations on democracy in ancient Greece, for example, slavery, vote denied to women)
 - The Assembly -
 - Suffrage, majority vote -
- The “classical” ideal of human life and works -
 - The ideal of the well-rounded individual and worthy citizen -
 - Pericles and the “Golden Age” -
 - Architecture: the Parthenon -
 - Games: The Olympics -
- Greek wars: victory and hubris, defeat and shame -
 - Persian Wars: Marathon, Thermopylae, Salamis -
 - The Peloponnesian War: Sparta defeats Athens -
- Socrates and Plato -
 - Socrates was Plato’s teacher; we know of him through Plato’s writings. -
 - For Socrates, wisdom is knowing that you do not know. -
 - The trial of Socrates -

See also Visual Arts 6: Raphael’s *School of Athens*. You may also want to examine David’s *Death of Socrates*.

- Plato and Aristotle
Plato was Aristotle's teacher.
They agreed that reason and philosophy should rule our lives, not emotion and rhetoric.
They disagreed about where true "reality" is: Plato says it is beyond physical things in ideas (cf. the "allegory of the cave"); Aristotle says reality is only in physical things.
- Alexander the Great and the spread of Greek ("Hellenistic") culture: the library at Alexandria

C. ANCIENT ROME

Teachers: Briefly review from grade 3: Romulus and Remus, Roman gods, legends, daily life, etc.

- The Roman Republic -
Builds upon Greek and classical ideals -
Class and status: patricians and plebeians, slaves -
Roman government: consuls, tribunes, and senators -
- The Punic Wars: Rome vs. Carthage
- Julius Caesar
- Augustus Caesar -
Pax Romana -
Roman law and the administration of a vast, diverse empire -
Virgil, *The Aeneid*: epic on the legendary origins of Rome -
- Christianity under the Roman Empire
Jesus's instruction to "Render unto Caesar the things which are Caesar's, and unto God the things that are God's" [Matthew 22:21] -
Roman persecution of Christians -
Constantine: first Christian Roman emperor -
- The "decline and fall" of the Roman Empire
Causes debated by historians for many hundreds of years (outer forces such as shrinking trade, attacks and invasions vs. inner forces such as disease, jobless masses, taxes, corruption and violence, rival religions and ethnic groups, weak emperors)
Rome's "decline and fall" perceived as an "object lesson" for later generations and societies

See also English 6:
Shakespeare's *Julius Caesar*.

III. The Enlightenment

Teachers: You are encouraged to use timelines and engage students in a brief review of some major intervening events in order to help students make a smooth transition across the gap in centuries between the ancient civilizations and the Enlightenment. Place the Enlightenment (17th and 18th centuries) in chronological context, in relation to eras and movements studied in earlier grades (Middle Ages, Age of Exploration & Renaissance, American Revolution, etc.).

- Faith in science and human reason, as exemplified by -
Isaac Newton and the laws of nature -
Descartes: "cogito ergo sum" -
- Two ideas of "human nature": Thomas Hobbes and John Locke
Hobbes: the need for a strong governing authority as a check on "the condition of man . . . [which] is a condition of war of everyone against everyone"
Locke: the idea of man as a "tabula rasa" and the optimistic belief in education;
argues against doctrine of divine right of kings and for government by consent of the governed
- Influence of the Enlightenment on the beginnings of the United States
Thomas Jefferson: the idea of "natural rights" in the Declaration of Independence
Montesquieu and the idea of separation of powers in government

See also Science 6: Science
Biographies: Isaac Newton.

IV. The French Revolution

Teachers: While the focus here is on the French Revolution, make connections with what students already know about the American Revolution, and place the American and French Revolutions in the larger global context of ideas and movements.

- The influence of Enlightenment ideas and of the English Revolution on revolutionary movements in America and France
- The American Revolution: the French alliance and its effect on both sides
- The Old Regime in France (*L'Ancien Régime*) -
 - The social classes: the three Estates -
 - Louis XIV, the “Sun King”: Versailles -
 - Louis XV: “*Après moi, le déluge*”
 - Louis XVI: the end of the Old Regime -
 - Marie Antoinette: the famous legend of “Let them eat cake” -
- 1789: from the Three Estates to the National Assembly -
 - July 14, Bastille Day -
 - Declaration of the Rights of Man -
 - October 5, Women’s March on Versailles -
 - “Liberty, Equality, Fraternity” -
- Louis XVI and Marie Antoinette to the guillotine
- Reign of Terror: Robespierre, the Jacobins, and the “Committee of Public Safety”
- Revolutionary arts and the new classicism
- Napoleon Bonaparte and the First French Empire -
 - Napoleon as military genius -
 - Crowned Emperor Napoleon I: reinventing the Roman Empire -
 - The invasion of Russia -
 - Exile to Elba -
 - Wellington and Waterloo -

See also Visual Arts 6: David, *Oath of the Horatii*; Delacroix, *Liberty Leading the People*.

V. Romanticism

- Beginning in early nineteenth century Europe, Romanticism refers to the cultural movement characterized by:
 - The rejection of classicism and classical values
 - An emphasis instead on emotion and imagination (instead of reason)
 - An emphasis on nature and the private self (instead of society and man in society)
- The influence of Jean-Jacques Rousseau’s celebration of man in a state of nature (as opposed to man in society): “Man is born free and everywhere he is in chains”; the idea of the “noble savage”
- Romanticism in literature, the visual arts, and music

See also English 6: Wordsworth, “I Wandered Lonely as a Cloud”; Byron, “Apostrophe to the Ocean” (from *Childe Harold’s Pilgrimage*); Visual Arts 6, Romantic Art; and Music 6, Romantic Music.

Note: In sixth grade, the World History guidelines catch up chronologically with the American History guidelines. The World History guidelines take students up to the consequences of industrialization in the mid-nineteenth century, and this is where the American History guidelines begin. See American History 6, Industrialization and Urbanization.

VI. Industrialism, Capitalism, and Socialism

A. THE INDUSTRIAL REVOLUTION

- Beginnings in Great Britain -
 - Revolution in transportation: canals, railroads, new highways -
 - Steam power: James Watt -
- Revolution in textiles: Eli Whitney and the cotton gin, factory production
- Iron and steel mills
- The early factory system -
 - Families move from farm villages to factory towns -
 - Unsafe, oppressive working conditions in mills and mines -
 - Women and child laborers -
 - Low wages, poverty, slums, disease in factory towns -
 - Violent resistance: Luddites -

B. CAPITALISM

- Adam Smith and the idea of laissez faire vs. government intervention in economic and social matters
- Law of supply and demand
- Growing gaps between social classes: Disraeli's image of "two nations" (the rich and the poor)

C. SOCIALISM

- An idea that took many forms, all of which had in common their attempt to offer an alternative to capitalism
 - For the public ownership of large industries, transport, banks, etc., and the more equal - distribution of wealth
- Marxism: the Communist form of Socialism
 - Karl Marx and Friedrich Engels, The Communist Manifesto: "Workers of the world, unite!"
 - Class struggle: bourgeoisie and proletariat
 - Communists, in contrast to Socialists, opposed all forms of private property.

See also American History 6:
Labor, International Workers
of the World; Eugene Debs.

VII. Latin American Independence Movements**A. HISTORY**

- The name "Latin America" comes from the Latin origin of the languages now most widely spoken (Spanish and Portuguese).
- Haitian revolution
 - Toussaint L'Ouverture
 - Abolition of West Indian slavery
- Mexican revolutions
 - Miguel Hidalgo
 - José María Morelos
 - Santa Anna vs. the United States
 - Benito Juárez
 - Pancho Villa, Emiliano Zapata
- Liberators
 - Simon Bolivar
 - José de San Martín
 - Bernardo O'Higgins
- New nations in Central America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua
- Brazilian independence from Portugal

B. GEOGRAPHY OF LATIN AMERICA

- Mexico: Yucatan Peninsula, Mexico City
- Panama: isthmus, Panama Canal
- Central America and South America: locate major cities and countries including
 - Caracas (Venezuela)
 - Bogota (Colombia)
 - Quito (Ecuador)
 - Lima (Peru)
 - Santiago (Chile)
 - La Paz (Bolivia)
- Andes Mountains
- Brazil: largest country in South America, rain forests, Rio de Janeiro, Amazon River
- Argentina: Rio de la Plata, Buenos Aires, Pampas

Teachers: The sixth grade American History guidelines pick up chronologically with the World History guidelines on mid-nineteenth century industrialism and its consequences.

I. Immigration, Industrialization, and Urbanization

A. IMMIGRATION

- Waves of new immigrants from about 1830 onward
 - Great migrations from Ireland (potato famine) and Germany
 - From about 1880 on, many immigrants arrive from southern and eastern Europe.
 - Immigrants from Asian countries, especially China
 - Ellis Island, “The New Colossus” (poem on the Statue of Liberty, written by Emma Lazarus)
 - Large populations of immigrants settle in major cities, including New York, Chicago, Philadelphia, Detroit, Cleveland, Boston, San Francisco
- The tension between ideals and realities
 - The metaphor of America as a “melting pot”
 - America perceived as “land of opportunity” vs. resistance, discrimination, and “nativism”
 - Resistance to Catholics and Jews
 - Chinese Exclusion Act

B. INDUSTRIALIZATION AND URBANIZATION

- The post-Civil War industrial boom
 - The “Gilded Age”
 - The growing gap between social classes
 - Horatio Alger and the “rags to riches” story
 - Growth of industrial cities: Chicago, Cleveland, Pittsburgh
 - Many thousands of African-Americans move north.
 - Urban corruption, “machine” politics: “Boss” Tweed in New York City, Tammany Hall
- The condition of labor
 - Factory conditions: “sweat shops,” long work hours, low wages, women and child laborers
 - Unions: American Federation of Labor, Samuel Gompers
 - Strikes and retaliation: Haymarket Square; Homestead, Pennsylvania
 - Labor Day
- The growing influence of big business: industrialists and capitalists
 - “Captains of industry” and “robber barons”: Andrew Carnegie, J. P. Morgan, Cornelius Vanderbilt
 - John D. Rockefeller and the Standard Oil Company as an example of the growing power of monopolies and trusts
 - Capitalists as philanthropists (funding museums, libraries, universities, etc.)
- “Free enterprise” vs. government regulation of business: Interstate Commerce Act and Sherman Antitrust Act attempt to limit power of monopolies

II. Reform

- Populism
 - Discontent and unrest among farmers
 - The gold standard vs. “free silver”
 - William Jennings Bryan
- The Progressive Era
 - “Muckraking”: Ida Tarbell on the Standard Oil Company; Upton Sinclair, *The Jungle*, on the meat packing industry
 - Jane Addams: settlement houses

See below, Reform: Jane Addams, settlement houses; Jacob Riis, ghettos in the modern city.

See also World History 6: Industrial Revolution.

See also World History 6: Capitalism, laissez-faire.

See also English 6: Poetry,
Paul Laurence Dunbar,
"Sympathy."

Note: Briefly review people
and ideas studied in grade 4,
American History, Reformers:
Women's Rights.

See also World History 6:
Socialism and Capitalism.

Jacob Riis, *How the Other Half Lives*: tenements and ghettos in the modern city
President Theodore (Teddy) Roosevelt: conservation and trust-busting

- Reform for African-Americans
 - Ida B. Wells: campaign against lynching
 - Booker T. Washington: Tuskegee Institute, Atlanta Exposition Address,
"Cast down your bucket where you are"
 - W. E. B. DuBois: founding of NAACP, "The problem of the twentieth century is the
problem of the color line," *The Souls of Black Folk*
- Women's suffrage
 - Susan B. Anthony
 - Nineteenth Amendment (1920)
- The Socialist critique of America: Eugene V. Debs

Visual Arts: Grade 6

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

In studying the works of art specified below, and in creating their own art, students should review, develop, and apply concepts introduced in previous grades, such as line, shape, form, space, texture, color, light, design, and symmetry.

I. Art History: Periods and Schools

Teachers: The focus here is intended to combine art history with analysis of specific illustrative works. Introduce the idea of classifying Western art by periods and schools, with major characteristics of each period and school. Timelines may help students situate the periods and schools. Note that the periods and characteristics are not absolute distinctions but generally helpful categories (to which there are always exceptions) often used in discussions of art. The following topics extend to the mid-nineteenth century. In later grades, students will examine late-nineteenth and twentieth-century art movements.

A. CLASSICAL ART: THE ART OF ANCIENT GREECE AND ROME

- Observe characteristics considered "classic"—emphasis on balance and proportion, idealization of human form—in -
The Parthenon and the Pantheon -
The Discus Thrower and *Apollo Belvedere*

B. GOTHIC ART (ca. 12th - 15th centuries)

- Briefly review the religious inspiration and characteristic features of Gothic cathedrals.

C. THE RENAISSANCE (ca. 1350-1600)

- Briefly review main features of Renaissance art (revival of classical subjects and techniques, emphasis on humanity, discovery of perspective) and examine representative works, including
Raphael, *The School of Athens*
Michelangelo, *David* (review from grade 5) -

D. BAROQUE (ca. 17th century)

- Note the dramatic use of light and shade, turbulent compositions, and vivid emotional expression in -
El Greco, *View of Toledo* (also known as *Toledo in a Storm*) -
Rembrandt: a self-portrait, such as *Self-Portrait*, 1659

E. ROCOCO (ca. mid- to late-1700's)

- Note the decorative and "pretty" nature of Rococo art, the use of soft pastel colors, and the refined, sentimental, or playful subjects in -
Jean Honoré Fragonard, *The Swing*

See also World History 6: Lasting Ideas from Greece and Rome, re Classical art.

See Visual Arts 4 for more detailed guidelines on Gothic architecture.

See Visual Arts 5 for more detailed guidelines on Renaissance art. See also World History 6: Lasting Ideas from Greece and Rome, re Raphael's *School of Athens*.

See also World History 6: French Revolution, *re* David. You may also wish to introduce David's *Death of Socrates* when you study Lasting Ideas from Greece and Rome. See World History 6.

See also World History 6: Romanticism, *re* Romantic art; and French Revolution, *re* Delacroix's *Liberty Leading the People*.

F. NEOCLASSICAL (ca. late 18th - early 19th century)

- Note as characteristic of Neoclassical art the reaction against Baroque and Rococo, the revival of classical forms and subjects, belief in high moral purpose of art, and balanced, clearly articulated forms in
Jacques Louis David, *Oath of the Horatii*

G. ROMANTIC (ca. late 18th - 19th century)

- Note how Romantic art is in part a reaction against Neoclassicism, with a bold, expressive, emotional style, and a characteristic interest in the exotic or in powerful forces in nature, in
Francisco Goya, *The Bullfight*
Eugene Delacroix, *Liberty Leading the People*
Caspar David Friedrich, *The Chalk Cliffs on Rugen*












H. REALISM (ca. mid- to late-19th century)

- Note the Realist's characteristic belief that art should represent ordinary people and activities, that art does not have to be uplifting, edifying, or beautiful, in
Jean Millet, *The Gleaners*
Gustave Courbet, *The Stone Breakers*
- Become familiar with examples of American realism, including
Winslow Homer, *Northeaster*
Thomas Eakins, *The Gross Clinic*
Henry O. Tanner, *The Banjo Lesson*

SEE INTRODUCTION, "The Arts in the Curriculum."

I. Elements of Music

Teachers: The Music guidelines for grades 6–8 share a basic vocabulary of the elements of music that can inform the discussion, appreciation, and study of selected musical works. Following these guidelines are recommendations in each grade for a core of musical content, broadly organized as a history of music from early to modern times, with attention to specific periods, composers, and genres. While these guidelines focus on musical vocabulary, appreciation, and history, musical performance should be encouraged and emphasized as local resources allow.

- Review as necessary from earlier grades:
 - The orchestra and families of instruments (strings, wind, brass, percussion); keyboard instruments
 - Vocal ranges: soprano, mezzo-soprano, alto; tenor, baritone, bass
- Recognize frequently used Italian terms:
 - grave* (very very slow)
 - largo* (very slow)
 - adagio* (slow)
 - andante* (moderate; "walking")
 - moderato* (medium)
 - allegro* (fast)
 - presto* (very fast)
 - prestissimo* (as fast as you can go)
 - ritardando* and *accelerando* (gradually slowing down and getting faster)
 - crescendo* and *decrescendo* (gradually increasing and decreasing volume)
 - legato* (smoothly flowing progression of notes), *staccato* (crisp, distinct notes)
- Recognize introduction, interlude, and coda in musical selections.
- Recognize theme and variations.
- Identify chords [such as I (tonic), IV (subdominant), V (dominant); V7]; major and minor chords; chord changes; intervals (third, fourth, fifth).
- Understand what an octave is.
- Understand the following notation and terms:
 - names of lines and spaces in the treble clef; middle C
 -  treble clef  bass clef  staff, bar line, double bar line, measure, repeat signs
 -  whole note  half note  quarter note  eighth note
 - whole rest, half rest, quarter rest, eighth rest
 -  grouped sixteenth notes
 - tied notes and dotted notes
 -  sharps  flats  naturals
 - Da capo* [*DC*] *al fine*
 - meter signature: $\frac{4}{4}$ or common time $\frac{2}{4}$ $\frac{3}{4}$ $\frac{6}{8}$
 - soft *pp* *p* *mp* loud *mf* *f* *ff*

II. Classical Music: From Baroque to Romantic

Teachers: While these guidelines focus on musical vocabulary, appreciation, and history, musical performance should be encouraged and emphasized as resources allow. The focus here combines music history with appreciation of illustrative works, and introduces the idea of classifying Western music by periods, with examples of specific composers and works, as well as some associated musical terms. Timelines may help students situate the periods. The periods and their characteristics are not absolute distinctions but generally helpful categories often used in discussions of music. A brief review of Medieval (grade 4) and Renaissance (grade 5) music is suggested.

Note: re Baroque music, recall from grade 2, Antonio Vivaldi, *The Four Seasons*.

Note: re classical symphony, recall from grade 4, Haydn, *Symphony No. 94* ("Surprise"); and, from grade 5, Beethoven, *Symphony No. 5*.

Note: Beethoven and Schubert are often considered transitional figures between Classic and Romantic. Students will study other Romantic composers in seventh grade, including Brahms, Berlioz, Liszt, and Wagner.

A. BAROQUE (ca. 1600-1750)

- Counterpoint, fugue, oratorio
- Johann Sebastian Bach: selections from *Brandenburg Concertos*, selections from *The Well-Tempered Clavier*, selections from the *Cantatas* such as BWV 80, BWV 140, or BWV 147
- George Frederick Handel: selections from *Water Music*, "Hallelujah Chorus" from *The Messiah*

B. CLASSICAL (ca. 1750-1825)

- The classical symphony (typically in four movements) -
Wolfgang Amadeus Mozart, *Symphony No. 40*
- The classical concerto: soloist, cadenza -
Wolfgang Amadeus Mozart, *Piano Concerto No. 21*
- Chamber music: string quartet, sonata -
Franz Joseph Haydn, *String Quartet Opus 76 No. 3, "Emperor"*
Ludwig van Beethoven, *Piano Sonata No. 14 ("Moonlight" Sonata)*

C. ROMANTIC (ca. 1800-1900)

- Beethoven as a transitional figure: *Symphony No. 9* (fourth movement)
- Romantic composers and works:
Franz Schubert, lieder (art songs): *Die Forelle* ("The Trout"), *Gretchen am Spinnrade* ("Gretchen at the Spinning Wheel")
Frederic Chopin: "Funeral March" from *Piano Sonata No. 2 in B flat minor, "Minute" Waltz*, "Revolutionary" *Etude in C minor*
Robert Schumann, *Piano Concerto in A Minor*

Teachers: Mathematics has its own vocabulary and patterns of thinking. It is a discipline with its own language and conventions. Thus, while some lessons may offer occasional opportunities for linking mathematics to other disciplines, it is critically important to attend to math as math. From the earliest years, mathematics requires incremental review and steady practice: not only the diligent effort required to master basic facts and operations, but also thoughtful and varied practice that approaches problems from a variety of angles, and gives children a variety of opportunities to apply the same concept or operation in different types of situations. While it is important to work toward the development of “higher-order problem-solving skills,” it is equally important—indeed, it is prerequisite to achieving “higher order” skills—to have a sound grasp of basic facts, and an automatic fluency with fundamental operations.

I. Numbers and Number Sense

- Read and write numbers (in digits and words) up to the trillions.
- Recognize place value up to hundred-billions.
- Integers (review): -
 - Locate positive and negative integers on a number line. -
 - Compare integers using $<$, $>$, $=$. -
 - Know that the sum of an integer and its opposite is 0. -
 - Add and subtract positive and negative integers. -
- Determine whether a number is a prime number or composite number.
- Round to the nearest ten; to the nearest hundred; to the nearest thousand; to the nearest hundred thousand; to the nearest million.
- Compare and order whole numbers, mixed numbers, fractions, and decimals, using the symbols $<$, $>$, $=$.
- Determine the greatest common factor (GCF) of given numbers.
- Determine the least common multiple (LCM) of given numbers.
- Exponents:
 - Review squares and square roots.
 - Using the terms *squared* and *cubed* and *to the n th power*, read and evaluate numerical expressions with exponents. -
 - Review powers of ten. -
 - Write numbers in expanded notation using exponents. -

Note: See Math 5: Fractions and Decimals; review these topics as needed.

II. Ratio, Percent, and Proportion

A. RATIO AND PROPORTION

- Solve proportions, including word problems involving proportions with one unknown.
- Use ratios and proportions to interpret map scales and scale drawings.
- Set up and solve proportions from similar triangles.
- Understand the justification for solving proportions by cross-multiplication.

B. PERCENT

- Convert between fractions, decimals, and percents.
- Find the given percent of a number, and find what percent a given number is of another number.
- Solve problems involving percent increase and decrease.
- Find an unknown number when a percent of the number is known.
- Use expressions with percents greater than 100% and less than 1%.

III. Computation

A. ADDITION

- Addition, commutative and associative properties: know the names and understand the properties.
Understand addition and subtraction as inverse operations.
Add and subtract with integers, fractions and decimals, both positive and negative.

B. MULTIPLICATION

- Commutative, associative, and distributive properties: know the names and understand the properties.
- Multiply multi-digit factors, with and without a calculator.
- Estimate a product.
- Multiply with integers, fractions, and decimals, both positive and negative.
- Distributive property for multiplication over addition or subtraction, that is, $A \times (B+C)$ or $A \times (B-C)$: understand its use in procedures such as multi-digit multiplication.

C. DIVISION

- Understand multiplication and division as inverse operations.
- Estimate the quotient.
- Divide multi-digit dividends by up to three-digit divisors, with and without a calculator.
- Divide with integers, fractions, or decimals, both positive and negative.

D. SOLVING PROBLEMS AND EQUATIONS

- Solve word problems with multiple steps.
- Solve problems with more than one operation, according to order of operations (with and without a calculator).

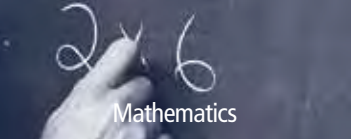
IV. Measurement

Teachers: Students should know all information regarding measurement presented in grades 4 and 5; review and reinforce as necessary.

- Solve problems requiring conversion of units within the U. S. Customary System, and within the metric system.
- Associate prefixes used in metric system with quantities: -
kilo = thousand -
hecto = hundred -
deka = ten -
deci = tenth -
centi = hundredth -
milli = thousandth -
- Time: solve problems on elapsed time; express parts of an hour in fraction or decimal form.

V. Geometry

- Identify and use signs that mean
congruent \cong -
similar \sim -
parallel \parallel -
perpendicular \perp
- Construct parallel lines and a parallelogram.
- Construct a perpendicular bisector.
- Know that if two lines are parallel, any line perpendicular to one is also perpendicular to the other; and, that two lines perpendicular to the same line are parallel.



- **Angles:**
 - Identify and measure the degrees in angles (review terms: right, acute, obtuse, straight).
 - Bisect an angle.
 - Construct an angle congruent to a given angle.
 - Construct a figure congruent to a given figure, using reflection over a line of symmetry, and identify corresponding parts.
 - Show how congruent plane figures can be made to correspond through reflection, rotation, and translation.
- **Triangles:** -
 - Know that the sum of the measures of the angles of a triangle is 180° .
 - Construct different kinds of triangles. -
 - Know terms by which we classify kinds of triangles: -
 - by length of sides: equilateral, isosceles, scalene -
 - by angles: right, acute, obtuse -
- Identify congruent angles and sides, and axes of symmetry, in parallelograms, rhombuses, rectangles, and squares.
- Find the area (A) and perimeter (P) of plane figures, or given the area or perimeter find the missing dimension, using the following formulas:
 - rectangle
 - $A = lw$
 - $P = 2(l + w)$
 - square
 - $A = s^2$
 - $P = 4s$
 - triangle
 - $A = \frac{1}{2}bh$
 - $P = s_1 + s_2 + s_3$
 - parallelogram -
 - $A = bh$
 - $P = 2(b + s)$
- **Circles:**
 - Identify arc, chord, radius (plural: radii), and diameter; know that radius = $\frac{1}{2}$ diameter.
 - Using a compass, draw circles with a given diameter or radius.
 - Solve problems involving application of the formulas for finding the circumference of a circle: $C = \pi d$, and $C = 2\pi r$, using 3.14 as the value of π .
 - Find the area of a circle using the formula $A = \pi r^2$
- Find volume of rectangular solids, or given the volume find a missing dimension, using the formulas $V = lwh$, or $V = bh$ (in which b = area of base).

VI. Probability and Statistics

- Find the range and measures of central tendency (mean, median, and mode) of a given set of numbers.
- Understand the differences among the measures of central tendency and when each might be used.
- Understand the use of a sample to estimate a population parameter (such as the mean), and that larger samples provide more stable estimates.
- Represent all possible outcomes of independent compound events in an organized way and determine the theoretical probability of each outcome.
- Compute the probability of any one of a set of disjoint events as the sum of their individual probabilities.
- Solve problems requiring interpretation and application of graphically displayed data.
- Given a set of data, find the mean, median, range, and mode.
- Construct a histogram; a tree diagram.

- Coordinate plane:
 - Plot points on a coordinate plane, using ordered pairs of positive and negative whole numbers.
 - Use the terms *origin* (0,0), *x-axis*, and, *y-axis*.
 - Graph simple functions and solve problems involving use of a coordinate plane.

VII. Pre-Algebra

- Recognize uses of variables and solve linear equations in one variable.
- Solve word problems by assigning variables to unknown quantities, writing appropriate equations, and solving them.
- Find the value for an expression, given replacement values for the variables; for example, what is $7/x - y$ when x is 2 and y is 10?
- Simplify expressions with variables by combining like terms.
- Understand the use of the distributive property in variable expressions such as $2x(2y + 3)$.

Teachers: Effective instruction in science requires not only hands-on experience and observation but also book learning, which helps bring coherence and order to a student's scientific knowledge. Only when topics are presented systematically and clearly can students make steady and secure progress in their scientific learning. The Science sequence for the middle school grades aims for more intensive and selective study of topics, a number of which were introduced in earlier grades. It also continues the practice of studying topics from each of the major realms of science (physical, life, and earth science). Students are expected to do experiments and write reports on their findings.



I. Plate Tectonics

- The surface of the earth
 - The surface of the earth is in constant movement.
 - The present features of earth come from its ongoing history. After the sun was formed, matter cooled creating the planets. The continents were once joined (Pangaea).
- Layered structure of the earth
 - Crust: surface layer of mainly basalt or granite, 5 to 25 miles thick
 - Mantle: 1,800 miles thick, rock of intermediate density, moves very slowly
 - Outer core: liquid iron and nickel
 - Inner core: solid iron and nickel, 800 miles thick, about 7,000 degrees C
- Crust movements
 - The surface of earth is made up of rigid plates that are in constant motion.
 - Plates move because molten rock rises and falls under the crust causing slowly flowing currents under the plates.
 - Plates move at speeds ranging from 1 to 4 inches (5-10 centimeters) per year.
 - Earthquakes usually occur where stress has been built up by plates moving in opposite directions against each other. Earthquakes cause waves (vibrations) which have:
 - focus, the point below the surface where the quake begins
 - epicenter, the point on the surface above the focus
 - Severity of ground shaking is measured on the Richter scale; each unit on the scale represents a tenfold severity increase
- Volcanoes usually occur where plates are pulling apart or coming together, but some occur at holes (hot spots) in the crust away from plate boundaries. As plates move over these hot spots, they cause chains of volcanoes and island chains like the Hawaiian Islands.
- Evidence for long-term movement of plates includes fit of continents and matches of rock types, fossils, and structures; ocean floor age and topography; ancient climate zones; locations of earthquakes, volcanoes, and mountain ranges; magnetic directions in ancient rocks.

II. Oceans

- Surface
 - The world ocean covers most of the earth's surface (71 per cent).
 - Three major subdivisions of the world ocean: Atlantic, Pacific, and Indian Oceans
 - Islands consist of high parts of submerged continents, volcanic peaks, coral atolls.
- Subsurface land features -
 - Continental shelf, continental slope, continental rise, abyssal plains -
 - Mid-ocean ridges and trenches, plate tectonics -
 - Mid-Atlantic Ridge, Mariana Trench
- Ocean bottom: average depth of sediment .3 mile, consists of rock particles and organic remains
- Composition of seawater: dilute solution of salts which come from weathering and erosion of continental rocks. -
 - Sodium chloride is the main salt. -

- **Currents, tides, and waves**
 - Surface currents: large circular streams kept in motion by prevailing winds and rotation of the earth; Gulf Stream (North Atlantic), Kuroshio (North Pacific)
 - Subsurface currents are caused by upwelling from prevailing offshore winds (Peru, Chile) and density differences (Antarctica); the upwelling pushes up nutrients from the ocean floor.
 - Tides are caused by gravitational forces of the sun and moon; there are two tides daily.
 - Waves are caused by wind on the ocean's surface.
 - Water molecules tend to move up and down in place and not move with the wave.
 - Crest and trough, wave height and wavelength, shoreline friction
 - Tsunamis: destructive, fast-moving large waves caused mainly by earthquakes
- **Marine life**
 - Life zones are determined by the depth to which light can penetrate making photosynthesis possible, and by the availability of nutrients.
 - The bottom (benthic zone) extends from sunlit continental shelf to dark sparsely populated depths. Shallow lighted water extending over continental shelf contains 90% of marine species.
 - Pelagic zone: water in open oceans
 - Classification of marine life
 - Bottom-living (benthic) such as kelp and mollusks
 - Free-swimming (nekton) such as fish and whales
 - Small drifting plants and animals (plankton), which are the dominant life and food source of the ocean
 - The basis for most marine life is phytoplankton (plant-plankton), which carry on photosynthesis near surface; contrast zooplankton (animal plankton).
 - Most deepwater life depends on rain of organic matter from above. The densest concentration of marine life is found in surface waters, such as those off Chile, where nutrient-rich water wells up to the bright surface.

III. Astronomy: Gravity, Stars, and Galaxies

- **Gravity: an attractive force between objects**
 - Newton's law of universal gravitation: Between any two objects in the universe there is an attractive force, gravity, which grows greater as the objects move closer to each other.
 - How gravity keeps the planets in orbit
- **Stars**
 - The sun is a star.
 - Kinds of stars (by size): giants, dwarfs, pulsars
 - Supernova; black holes
 - Apparent movement of stars caused by rotation of the earth
 - Constellations: visual groupings of stars, for example, Big Dipper, Orion
 - Astronomical distance measured in light years
- **Galaxies**
 - The Milky Way is our galaxy; the Andromeda Galaxy is closest to the Milky Way.
 - Quasars are the most distant visible objects (because the brightest).

See below, Energy: Nuclear energy, re Stars.

IV. Energy, Heat, and Energy Transfer

A. ENERGY

- Six forms of energy: mechanical, heat, electrical, wave, chemical, nuclear
- The many forms of energy are interchangeable, for example, gasoline in a car, windmills, hydroelectric plants.
- Sources of energy: for example, heat (coal, natural gas, solar, atomic, geothermal, and thermonuclear), mechanical motion (such as falling water, wind)



- Fossil fuels: a finite resource
Carbon, coal, oil, natural gas
Environmental impact of fossil fuels: carbon dioxide and global warming theory, greenhouse effect, oil spills, acid rain
- Nuclear energy
Uranium, fission, nuclear reactor, radioactive waste
Nuclear power plants: safety and accidents (for example, Three Mile Island, Chernobyl)

B. HEAT

- Heat and temperature: how vigorously atoms are moving and colliding
- Three ways that heat energy can be transferred: conduction, convection, radiation
The direction of heat transfer

C. PHYSICAL CHANGE: ENERGY TRANSFER

- States of matter (solid, liquid, gas) in terms of molecular motion
In gases, loosely packed atoms and molecules move independently and collide often. Volume and shape change readily.
In liquids, atoms and molecules are more loosely packed than in solids and can move past each other. Liquids change shape readily but resist change in volume.
In solids, atoms and molecules are more tightly packed and can only vibrate. Solids resist change in shape and volume.
- Most substances are solid at low temperatures, liquid at medium temperatures, and gaseous at high temperatures.
- A change of phase is a physical change (no new substance is produced).
- Matter can be made to change phases by adding or removing energy.
- Expansion and contraction
Expansion is adding heat energy to a substance, which causes the molecules to move more quickly and the substance to expand.
Contraction is when a substance loses heat energy, the molecules slow down, and the substance contracts.
Water as a special case: water expands when it changes from a liquid to a solid.
- Changing phases: condensation; freezing; melting; boiling
Different amounts of energy are required to change the phase of different substances.
Each substance has its own melting and boiling point.
The freezing point and boiling point of water (in degrees Celsius and Fahrenheit)
- Distillation: separation of mixtures of liquids with different boiling points.

V. The Human Body

- The circulatory and lymphatic systems -
Briefly review from grade 4: circulatory system -
Lymph, lymph nodes, white cells, tonsils -
Blood pressure, hardening and clogging of arteries -
- The immune system fights infections from bacteria, viruses, fungi.
White cells, antibodies, antigens
Vaccines, communicable and non-communicable diseases, epidemics
Bacterial diseases: tetanus, typhoid, tuberculosis; antibiotics like penicillin, discovered by Alexander Fleming
Viral diseases: common cold, chicken pox, mononucleosis, rabies, polio, AIDS

Note: See Science 5 for the human reproductive system. There is some flexibility in the grade-level placement of the study of topics relating to human reproduction, as different schools and districts have differing local requirements, typically introducing these topics in either fifth or sixth grade.

See above, Plate Tectonics
re Wegener; Energy re
Curie; Astronomy, Gravity,
re Newton. See also World
History 6, The Enlightenment,
re Newton.

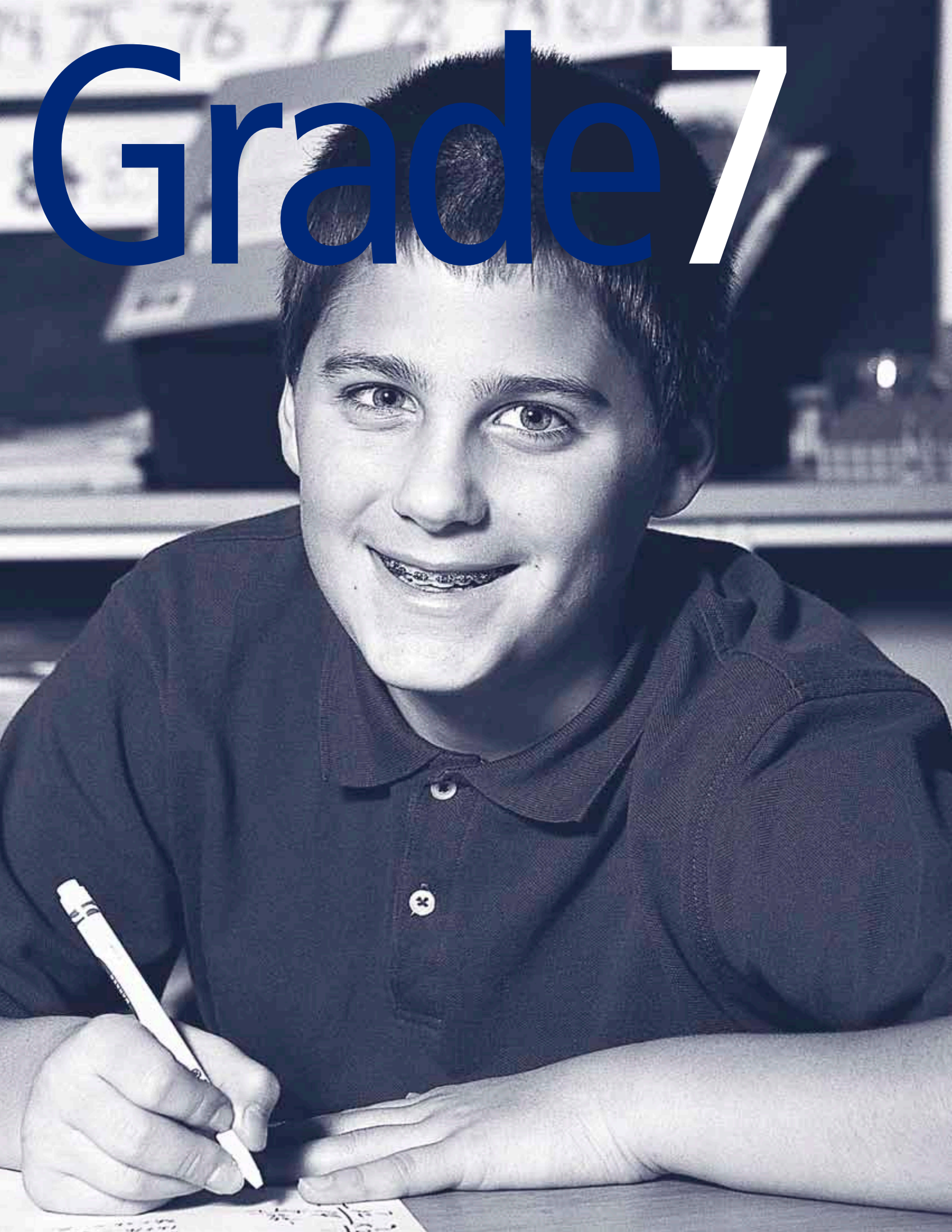
VI. Science Biographies

Marie Curie (advances in science of radioactivity; discovered the elements polonium and radium)

Lewis Howard Latimer (worked with Alexander Graham Bell on drawings of Bell's invention, the telephone; improved Thomas Edison's light bulb)

Isaac Newton (known for advances in physics; outlined laws of gravity and invented the telescope)

Alfred Wegener (known for theory that the continents were once joined together and split apart to form the continents; now known as "the continental drift")



Grade 7

Overview of Topics

Grade 7

English

- I. Writing, Grammar, and Usage
 - A. Writing and Research
 - B. Speaking and Listening
 - C. Grammar
 - D. Spelling
 - E. Vocabulary
- II. Poetry
 - A. Poems
 - B. Elements of Poetry
- III. Fiction, Nonfiction, and Drama
 - A. Short Stories
 - B. Novels
 - C. Elements of Fiction
 - D. Essays and Speeches
 - E. Autobiography
 - F. Drama
 - G. Literary Terms
- IV. Foreign Phrases Commonly Used in English

History and Geography

- I. America Becomes a World Power
- II. World War I: "The Great War," 1914–1918
 - A. History
 - B. Geography of Western and Central Europe
- III. The Russian Revolution
 - A. History
 - B. Geography
- IV. America from the Twenties to the New Deal
 - A. America in the Twenties
 - B. The Great Depression
 - C. Roosevelt and the New Deal
- V. World War II
 - A. The Rise of Totalitarianism in Europe
 - B. World War II in Europe and at Home, 1939–45
 - C. World War II in the Pacific, and the End of the War
- VI. Geography of the United States

Visual Arts

- I. Art History: Periods and Schools
 - A. Impressionism
 - B. Post-Impressionism
 - C. Expressionism and Abstraction
 - D. Modern American Painting

Music

- I. Elements of Music
- II. Classical Music: Romantics and Nationalists
 - A. Romantic Composers and Works
 - B. Music and National Identity
- III. American Musical Traditions (Blues and Jazz)

Mathematics

- I. Pre-Algebra
 - A. Properties of the Real Numbers
 - B. Linear Applications and Proportionality
 - C. Polynomial Arithmetic
 - D. Equivalent Equations and Inequalities
 - E. Integer Exponents
- II. Geometry
 - A. Three-Dimensional Objects
 - B. Angle Pairs
 - C. Triangles
 - D. Measurement
- III. Probability and Statistics

Science

- I. Atomic Structure
- II. Chemical Bonds and Reactions
- III. Cell Division and Genetics
- IV. History of the Earth and Life Forms
 - A. Paleontology
 - B. Geologic Time
- V. Evolution
 - A. Evolution
 - B. Natural Selection
 - C. Extinction and Speciation
- VI. Science Biographies



See also English 6 for more guidelines on writing persuasive essays.

I. Writing, Grammar, and Usage

Teachers: Students should be given opportunities to write fiction, poetry, or drama, but instruction should emphasize repeated expository writing. Students should examine their work with attention to unity, coherence, and emphasis. Expository essays should have a main point and stick to it, and have a coherent structure, typically following the pattern of introduction, body, and conclusion. Paragraphs should have a unified focus, be developed with evidence and examples, and have transitions between them. Essays should have appropriate tone and diction, as well as correct spelling and grammar in their final form. Standards for writing apply across the disciplines.

A. WRITING AND RESEARCH

- Expository writing: Write nonfiction essays that describe, narrate, persuade, and compare and contrast.
- Write research essays, with attention to
 - asking open-ended questions
 - gathering relevant data through library and field research
 - summarizing, paraphrasing, and quoting accurately when taking notes
 - defining a thesis (that is, a central proposition, a main idea)
 - organizing with an outline
 - integrating quotations from sources
 - acknowledging sources and avoiding plagiarism
 - preparing a bibliography

B. SPEAKING AND LISTENING

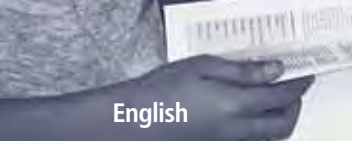
- Participate civilly and productively in group discussions.
- Give a short speech to the class that is well-organized and well-supported.
- Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.

C. GRAMMAR

Teachers: Students should have a working understanding of the following terms and be able to use them to discuss and analyze writing.

Parts of the Sentence

- Prepositional phrases -
 - Identify as adjectival or adverbial -
 - Identify word(s) modified by the prepositional phrase -
 - Object of preposition (note that pronouns are in objective case) -
 - Punctuation of prepositional phrases -
- Subject and verb
 - Find complete subject and complete predicate
 - Identify simple subject and simple verb (after eliminating prepositional phrases):
 - in statements -
 - in questions -
 - in commands (you understood) -
 - with there and here -
- Auxiliary verbs -
- Noun of direct address -
- Subject-verb agreement: -
 - with compound subjects
 - with compound subjects joined by *or*
 - with indefinite pronouns (for example, everyone, anyone, some, all)



- Complements
 - Find direct and indirect objects
 - Review linking vs. action verbs
 - Predicate nominative
 - Predicate adjective
- Appositives
 - Identify and tell which noun is renamed
 - Use of commas with appositive phrases
- Participles
 - Identify past, present participles
 - Identify participial phrases
 - Find the noun modified
 - Commas with participial phrases
- Gerunds and gerund phrases
 - Identify and tell its use in the sentence (subject, direct object, indirect object, appositive, predicate nominative, object of preposition)
- Infinitives and infinitive phrases
 - Adjective and adverb: find the word it modifies
 - Noun: tell its use in the sentence

Clauses

- Review: sentences classified by structure
 - Simple; compound (coordinating conjunctions v. conjunctive adverbs); complex; compound-complex
- Review independent (main) v. dependent (subordinate) clauses
- Kinds of dependent clauses
 - Adjective clauses
 - Identify and tell noun modified
 - Introductory words: relative pronouns, relative adverbs (where, when)
 - Implied “that”
 - Commas with nonrestrictive (nonessential) adjective clause
 - Adverb clauses
 - Identify and tell the word(s) modified
 - Subordinating conjunctions (for example, because, although, when, since, before, after, as soon as, where)
 - Comma after introductory adverbial clause
 - Noun clauses
 - Identify and tell use in the sentence (subject, predicate nominative, direct object, indirect object, object of preposition, appositive, objective complement, noun of direct address)

D. SPELLING

- Continue work with spelling, with special attention to commonly misspelled words, including:

achievement	despise	muscular	scholar
address	doesn't	occasionally	shepherd
analysis	environment	offense	sincerely
anonymous	excellent	particularly	sponsor
argument	existence	persuade	succeed
beginning	grammar	politician	surprise
business	hypocrisy	prejudice	tendency
college	immediately	probably	thorough
conscience	interpret	recognize	truly
control	knowledge	remembrance	women
criticism	lieutenant	responsibility	written
definite	medieval	rhyme	
description	muscle	sacrifice	

Note: More commonly misspelled words are listed in grades 6 and 8.

E. VOCABULARY

Teachers: Students should know the meaning of these Latin and Greek words that form common word roots and be able to give examples of English words that are based on them.

Note: More Latin and Greek words and roots are listed in grades 6 and 8. In the listings here, L = Latin, G = Greek. No single form of the Latin or Greek words is consistently used here, but rather the form that is most similar to related English words.

<u>Latin/Greek Word</u>	<u>Meaning</u>	<u>Examples</u>
ab [L]	away from	abnormal, absent
ad [L]	to, forward	advocate, advance
amo [L]	love	amiable, amorous
audio [L]	hear	audience, inaudible
auto [G]	self	automobile, autocrat
bene [L]	good/well	beneficial, benefit
circum [L]	around	circulate, circumference
celer [L]	swift	accelerate
chronos [G]	time	chronological
cresco [L]	grow	increase, decrease
cum [L]	with	compose, accommodate
curro [L]	run	current, cursive, course
demos [G]	people	democracy, epidemic
erro [L]	wander, stray	error, erratic
ex [L]	from, out of	exclaim, exhaust
extra [L]	outside	extravagant, extraordinary
facio [L]	make	effect, affect
fero [L]	bring, bear	confer, defer
fragilis [L]	breakable	fragile, fragment
finis [L]	end	confine, finality
homos [G]	same	homogenous
hyper [G]	over, beyond	hypertension, hyperactive
hypo [G]	under, beneath	hypodermic, hypothesis
jacio [L]	throw	eject, interject
judex [L]	a judge	judge, prejudice
juro [L]	swear	jury, perjury
makros [G]	long	macrocosm
malus [L]	bad	malady, malice
manus [L]	hand	manufacture, manuscript
morphe [G]	form	metamorphosis, amorphous
neos [G]	new	neophyte
pan [G]	all	panorama, panacea
pedis [L]	foot	pedal, biped
polis [G]	city	metropolis
pro [L]	before, for	proceed, propose, prodigy
pseudos [G]	a lie	pseudonym
re [L]	back, again	react, reply, revise
scribo [L]	write	scribble, inscribe
sentio [L]	feel (with senses)	sensation, sensual, sentry
sequor [L]	follow	subsequent, sequel
solvo [L]	loosen	solution, dissolve, solvent
specto [L]	look at	inspect, speculate, perspective
strictus [L]	drawn tight	strict, constricted
sub [L]	under	subdue, subject, subtract
super [L]	above	superficial, superlative, supreme
syn [G]	together	synchronize, synthesis
tendo [L]	stretch	tension, intense, detention
teneo [L]	hold, keep	contain, content, maintain
trans [L]	across	transfer, transcontinental
valeo [L]	be strong	prevail, valiant
venio [L]	come	event, advent
voco [L]	call	vocal, voice, vociferous
volvo [L]	revolve	evolve, revolution
zoon, zoe [G]	animal, life	zoology, protozoa

See also History 7: World War I, re Wilfred Owen; and, America in the Twenties, Harlem Renaissance, re Langston Hughes and Countee Cullen.

II. Poetry

Teachers: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose students to more poetry, old and new, and to have students write their own poems. Students should examine some poems in detail, discussing what the poems mean as well as asking questions about the poet's use of language.

A. POEMS

Annabel Lee (Edgar Allan Poe)
 Because I could not stop for Death (Emily Dickinson)
 The Charge of the Light Brigade (Alfred Lord Tennyson)
 The Chimney Sweeper (both versions from *The Songs of Innocence* and *The Songs of Experience*; William Blake)
 The Cremation of Sam McGee (Robert Service)
 Dulce et Decorum Est (Wilfred Owen)
 Fire and Ice; Nothing Gold Can Stay (Robert Frost)
 Heritage (Countee Cullen)
 Macavity: The Mystery Cat (T.S. Eliot)
 The Negro Speaks of Rivers; Harlem; Life is Fine (Langston Hughes)
 This Is Just to Say; The Red Wheelbarrow (William Carlos Williams)

B. ELEMENTS OF POETRY

- Review: meter, iamb, rhyme scheme, free verse, couplet, onomatopoeia, alliteration
- Stanzas and refrains
- Forms -
 - ballad -
 - sonnet -
 - lyric -
 - narrative -
 - limerick -
 - haiku -
- Types of rhyme: end, internal, slant, eye

III. Fiction, Nonfiction, and Drama

A. SHORT STORIES

"The Gift of the Magi" (O. Henry) -
 "The Necklace" (Guy de Maupassant) -
 "The Secret Life of Walter Mitty" (James Thurber) -
 "The Tell-Tale Heart"; "The Purloined Letter" (Edgar Allan Poe) -

B. NOVELS / NOVELLAS

The Call of the Wild (Jack London) -
Dr. Jekyll and Mr. Hyde (Robert Louis Stevenson) -

C. ELEMENTS OF FICTION

- Review aspects of plot and setting
- Theme
- Point of view in narration -
 - omniscient narrator -
 - unreliable narrator -
 - third person limited -
 - first person -
- Conflict: external and internal
- Suspense and climax

See also History 7: World War II, re Roosevelt's "Declaration of War" and Anne Frank's *Diary of a Young Girl*.

D. ESSAYS AND SPEECHES

- "Shooting an Elephant" (George Orwell) -
- "The Night the Bed Fell" (James Thurber) -
- "Declaration of War on Japan" (Franklin D. Roosevelt) -

E. AUTOBIOGRAPHY

Diary of a Young Girl (Anne Frank)

F. DRAMA

- *Cyrano de Bergerac* (Edmond Rostand)
- Elements of drama -
 - Tragedy and comedy (review) -
 - Aspects of conflict, suspense, and characterization -
 - Soliloquies and asides -

G. LITERARY TERMS

- Irony: verbal, situational, dramatic
- Flashbacks and foreshadowing
- Hyperbole; oxymoron; parody

IV. Foreign Phrases Commonly Used in English

Teachers: Students should learn the meaning of the following Latin phrases that are commonly used in English speech and writing.

Note: In eighth grade, students will learn French phrases commonly used in English speech and writing.

ad hoc - concerned with a particular purpose; improvised [literally, "to the thing"]
 bona fides - good faith; sincere, involving no deceit or fraud
 carpe diem - seize the day, enjoy the present
 caveat emptor - let the buyer beware, buy at your own risk
 de facto - in reality, actually existing
 in extremis - in extreme circumstances, especially at the point of death
 in medias res - in the midst of things
 in toto - altogether, entirely
 modus operandi - a method of procedure
 modus vivendi - a way of living, getting along
 persona non grata - an unacceptable or unwelcome person
 prima facie - at first view, apparently; self-evident
 pro bono publico - for the public good
 pro forma - for the sake of form, carried out as a matter of formality
 quid pro quo - something given or received in exchange for something else
 requiescat in pace, R I P - may he or she rest in peace [seen on tombstones]
 sic transit gloria mundi - thus passes away the glory of the world
 sine qua non - something absolutely indispensable [literally, "without which not"]
 sub rosa - secretly

History and Geography: Grade 7

Teachers: In earlier grades, the history guidelines in the *Core Knowledge Sequence* were organized into separate strands on World History and American History. Because the World and American History strands merged chronologically in sixth grade, here in seventh grade the Sequence presents a unified section on History and Geography. Central themes of the history guidelines in grades seven and eight are growth and change in American democracy, and interactions with world forces, particularly nationalism and totalitarianism. Fundamental principles and structure of American government will be reviewed in a civics unit in eighth grade.

The study of geography aims at understanding the spatial relationship between nature and human culture and processes that change environments. Following the main outline of the history curriculum, seventh grade students study the geography of Europe, the United States, and Japan, while eighth graders will study the Middle East, South Asia, China, Canada, Mexico, and post-Cold War changes. Students should learn locations as well as the relationships between physical and human systems.

I. America Becomes a World Power

- Expansion of the U.S. Navy, Captain Alfred T. Mahan
- U.S. annexation of Hawaii
- The Spanish-American War -
 - Cuban War for Independence, José Martí -
 - Teddy Roosevelt and the Rough Riders -
 - Spain gives the U.S. Guam, Puerto Rico, and the Philippines -
- Complications of imperialism: War with the Philippines, Anti-Imperialist League
- Building the Panama Canal: “Roosevelt Corollary” to the Monroe Doctrine, “Speak softly and carry a big stick.”

II. World War I: “The Great War,” 1914–1918

A. HISTORY

- National pride and greed as causes: European nationalism, militarism, and colonialism
 - The British Empire: Queen Victoria
 - Italy becomes a nation: Garibaldi
 - German nationalism and militarism: Bismarck unifies Germany, war against France, France cedes Alsace-Lorraine to Germany
 - European imperialism and rivalries in Africa -
 - Stanley and Livingstone -
 - British invade Egypt to protect Suez Canal -
 - French in North Africa -
 - Berlin Conference and the “scramble for Africa” -
- Entangling defense treaties: Allies vs. Central Powers, Archduke Ferdinand assassinated
- The Western Front and Eastern Front, Gallipoli, Lawrence of Arabia
- War of attrition and the scale of losses: Battle of the Marne (1914), new war technologies (for example, machine guns, tanks, airplanes, submarines), trench warfare
- U.S. neutrality ends: sinking of the Lusitania, “Make the world safe for democracy”
- Armistice Day, Nov. 11, 1918, abdication of Kaiser Wilhelm II
- Treaty of Versailles -
 - New central European states and national boundaries -
 - German reparations and disarmament -
- Woodrow Wilson’s 14 Points -
 - League of Nations, concept of collective security -

B. GEOGRAPHY OF WESTERN AND CENTRAL EUROPE

Teachers: Students should regularly consult maps in reference to the following topics.

- Physical features -
 - Mountains: Alps, Apennines, Carpathians, Pyrenees -
 - Danube and Rhine Rivers -
 - Seas: Adriatic, Aegean, Baltic, Black, Mediterranean, North -
- Population and natural resources, acid rain damage
- Languages, major religions
- Legacy of Roman Empire: city sites, transportation routes
- Industrial Revolution leads to urbanization (review from grade 6)
- Scandinavia: comprised of Denmark, Norway, Sweden, sometimes also includes Finland and Iceland
 - Cities: Copenhagen (Denmark), Oslo (Norway), Stockholm (Sweden), Helsinki (Finland)
- United Kingdom: comprised of Great Britain (England, Scotland, Wales) and Northern Ireland
 - Irish Sea, English Channel
 - North Sea: gas and oil
 - England: London, Thames River
 - Scotland: Glasgow, Edinburgh
 - Northern Ireland: Ulster and Belfast, Catholic-Protestant strife
 - Ireland: Dublin (review from grade 6: famine of 1840s, mass emigration)
- France -
 - Alps, Mont Blanc -
 - Seine and Rhone Rivers -
 - Bay of Biscay, Strait of Dover -
 - Corsica (island) -
 - Major cities: Paris, Lyon, Marseilles -
- Belgium, Netherlands (Holland), and Luxembourg
 - Cities: Brussels (Belgium), Amsterdam, Rotterdam, The Hague (Netherlands)
- Germany -
 - Cities: Berlin, Bonn, Hamburg, Munich -
 - Ruhr Valley: mining region, industrial cities including Essen -
 - Largest population in Europe, highly urbanized -
- Austria and Switzerland -
 - Mostly mountainous (the Alps) -
 - Cities: Vienna (Austria), Bern, Geneva (Switzerland) -
- Italy -
 - Apennines -
 - Sardinia and Sicily (islands) -
 - Cities: Milan, Rome, Venice, Florence -
 - Vatican City: independent state within Rome -
- Iberian Peninsula: Spain and Portugal -
 - Cities: Madrid (Spain), Lisbon (Portugal) -

III. The Russian Revolution

A. HISTORY

- Tensions in the Russian identity: Westernizers vs. traditionalists
- Revolution of 1905, “Bloody Sunday,” Russo-Japanese War
- The last czar: Nicholas II and Alexandra
- Economic strains of World War I
- Revolutions of 1917 -
 - March Revolution ousts Czar -
 - October Revolution: Bolsheviks, Lenin and revolutionary Marxism -
- Civil War: Bolsheviks defeat Czarist counterrevolution, Bolsheviks become the Communist Party, creation of the Soviet Union

B. GEOGRAPHY

Teachers: Students should regularly consult maps in reference to the following topics.

- Overview
 - Territorially the largest state in the world
 - All parts exposed to Arctic air masses
 - Little moisture reaches Russia, because of distance from Atlantic Ocean, and because Himalayas block movement of warm, moist air from south
 - Population concentrated west of Ural Mountains
 - Siberia: rich in resources
 - Mongolia: Russian-dominated buffer state with China
 - Few well-located ports
 - Rich oil and natural gas regions
- Physical features:
 - Volga and Don Rivers (connected by canal)
 - Caspian Sea, Aral Sea (being drained by irrigation projects)
 - Sea of Japan, Bering Strait
- Cities: Moscow, Petersburg (formerly Leningrad), Vladivostok, Volgograd (formerly Stalingrad)

IV. America from the Twenties to the New Deal

A. AMERICA IN THE TWENTIES

- Isolationism: restrictions on immigration, Red Scare, Sacco and Vanzetti, Ku Klux Klan
- The “Roaring Twenties”: flappers, prohibition and gangsterism, St. Valentine’s Day Massacre, Al Capone
- The Lost Generation: Ernest Hemingway, F. Scott Fitzgerald
- Scopes “Monkey Trial”
- Women’s right to vote: 19th Amendment
- “New Negro” movement, Harlem Renaissance
 - African American exodus from segregated South to northern cities
 - W. E. B. Du Bois: *The Souls of Black Folk*, NAACP (review from grade 6)
 - Zora Neal Hurston, Countee Cullen, Langston Hughes
 - “The Jazz Age”: Duke Ellington, Louis Armstrong
 - Marcus Garvey, black separatist movement
- Technological advances
 - Henry Ford’s assembly line production, Model T
 - Residential electrification: mass ownership of radio, Will Rogers
 - Movies: from silent to sound, Charlie Chaplin
 - Pioneers of flight: Charles Lindbergh, Amelia Earhart
 - Decline of rural population

B. THE GREAT DEPRESSION

- Wall Street stock market Crash of ’29, “Black Tuesday”
- Hoover insists on European payment of war debts, Smoot-Hawley Tariff Act
- Mass unemployment
 - Agricultural prices collapse following European peace
 - Factory mechanization eliminates jobs
 - Bonus Army
 - “Hoovervilles”
- The Dust Bowl, “Okie” migrations
- Radicals: Huey Long, American Communist Party, Sinclair Lewis

See below, VII. Geography of the United States: New York City.

See also Music 7: American Musical Traditions: Jazz.

C. ROOSEVELT AND THE NEW DEAL

- Franklin Delano Roosevelt: “The only thing we have to fear is fear itself”
Eleanor Roosevelt
- The New Deal
Growth of unions: John L. Lewis and the CIO (Congress of Industrial Organizations),
A. Philip Randolph, Memorial Day Massacre
New social welfare programs: Social Security
New regulatory agencies: Securities and Exchange Commission, National Labor
Relations Board
Tennessee Valley Authority
- Roosevelt’s use of executive power: “Imperial Presidency”, “court packing”

Note: re growth of unions,
recall from grade 6, American
Federation of Labor.

V. World War II

A. THE RISE OF TOTALITARIANISM IN EUROPE

- Italy
Mussolini establishes fascism
Attack on Ethiopia
- Germany
Weimar Republic, economic repercussions of WWI
Adolf Hitler and the rise of Nazi totalitarianism: cult of the *Führer* (“leader”),
Mein Kampf
Nazism and the ideology of fascism, in contrast to communism and democracy
Racial doctrines of the Nazis: anti-Semitism, the concept of *Lebensraum* (literally, “living
space”) for the “master race,” *Kristallnacht*
The Third Reich before the War: Gestapo, mass propaganda, book burning
- The Soviet Union
Communist totalitarianism: Josef Stalin, “Socialism in one country”
Collectivization of agriculture
Five-year plans for industrialization
The Great Purge
- Spanish Civil War
Franco, International Brigade, Guernica

See also Visual Arts 7:
Picasso’s *Guernica*.

B. WORLD WAR II IN EUROPE AND AT HOME, 1939–45

- Hitler defies Versailles Treaty: reoccupation of Rhineland, *Anschluss*, annexation
of Austria
- Appeasement: Munich Agreement, “peace in our time”
- Soviet-Nazi Nonaggression Pact
- *Blitzkrieg*: invasion of Poland, fall of France, Dunkirk
- Battle of Britain: Winston Churchill, “nothing to offer but blood, toil, tears, and sweat”
- The Home Front in America
American Lend-Lease supplies, Atlantic Charter
America First movement
U.S. mobilization for war: desegregation of defense industries, “Rosie the Riveter,”
rationing, war bonds
America races Germany to develop the atomic bomb: the Manhattan Project
- Hitler invades Soviet Union: battles of Leningrad and Stalingrad
- The Holocaust: “Final Solution,” concentration camps (Dachau, Auschwitz)
- North Africa Campaign: El Alamein
- D-Day: Allied invasion of Normandy, General Dwight Eisenhower
- Battle of the Bulge, bombing of Dresden
- Yalta Conference
- Surrender of Germany, Soviet Army takes Berlin

See also English 7:
Autobiography, Anne Frank’s
Diary of a Young Girl.

See also English 7: Essays and Speeches, Roosevelt's "Declaration of War."

C. WORLD WAR II IN THE PACIFIC, AND THE END OF THE WAR

- Historical background: Japan's rise to power
 - Geography of Japan (review all topics from grade 5)
 - Sea of Japan and Korea Strait
 - High population density, very limited farmland, heavy reliance on imported raw materials and food
 - End of Japanese isolation, Commodore Matthew Perry
 - Meiji Restoration: end of feudal Japan, industrialization and modernization
 - Japanese imperialism: occupation of Korea, invasion of Manchuria, Rape of Nanking
 - Japanese-Soviet neutrality treaty
- Pearl Harbor, Dec. 7, 1941: "A day that will live in infamy."
- Internment of Japanese-Americans
- Fall of the Philippines: Bataan Death March, General Douglas MacArthur, "I shall return."
- Battle of Midway
- Island amphibious landings: Guadalcanal, Iwo Jima
- Surrender of Japan -
 - Atom bombs dropped on Hiroshima and Nagasaki, the Enola Gay -
 - U.S. dictates pacifist constitution for Japan, Emperor Hirohito
- Potsdam Conference, Nuremberg war crimes trials
- Creation of United Nations: Security Council, Universal Declaration of Human Rights

VI. Geography of the United States

Teachers: Students should regularly consult maps in reference to the following topics:

- Physical features
 - General forms: Gulf/Atlantic coastal plain, Appalachian highlands and Piedmont, Midwest lowlands, Great Plains, Rocky Mountains, Intermountain Basin and Range, Pacific coast ranges, Arctic coastal plain
 - Mountains: Rockies, Appalachians, Sierra Nevada, Cascades, Adirondacks, Ozarks
 - Peaks: McKinley, Rainier, Whitney
 - Main water features: Gulf of Mexico, Chesapeake Bay, San Francisco Bay, Puget Sound, Great Salt Lake, Great Lakes (freshwater)—Erie, Huron, Michigan, Ontario, Superior
 - Rivers: Mississippi, Missouri, Ohio, Colorado, Hudson, Columbia, Potomac, Rio Grande, Tennessee
 - Niagara Falls, Grand Canyon, Mojave Desert, Death Valley
- Political, economic, and social features
 - The fifty states and their capitals (review), Washington, D. C., Commonwealth of Puerto Rico, Virgin Islands, Guam
- Cities: Atlanta, Baltimore, Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, Houston, Kansas City, Los Angeles, Memphis, Miami, Milwaukee, Minneapolis, New Orleans, Norfolk, Philadelphia, Phoenix, Pittsburgh, Portland, St. Louis, San Antonio, San Diego, San Francisco, Seattle, Tampa
- Population -
 - Expansion of settlement -
 - Population density -

- Regions
 - New England
 - Mid-Atlantic
 - South: “Dixie,” Mason-Dixon Line, Bible Belt
 - Middle West: Rust Belt, Corn Belt
 - Southwest: Sun Belt
 - Mountain States
 - West Coast: San Andreas fault, California aqueduct (water supply) system
 - Coal, oil, and natural gas deposits
 - Agricultural crop regions
- New York City
 - Bronx, Brooklyn, Manhattan, Queens, Staten Island
 - Broadway, Fifth Avenue, Madison Avenue, Park Avenue, Times Square, Wall Street
 - Central Park, Harlem, Greenwich Village

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

In studying the works of art specified below, and in creating their own art, students should review, develop, and apply concepts introduced in previous grades, such as line, shape, form, space, texture, color, light, design, and symmetry.

I. Art History: Periods and Schools

Teachers: The guidelines here continue the organizational scheme established in sixth grade, which combined art history with analysis of specific illustrative works. Timelines may help students situate the artists, periods, and schools. Note that the periods and characteristics are not absolute distinctions but generally helpful categories (to which there are always exceptions) often used in discussions of art.

A. IMPRESSIONISM

- Examine characteristics of Impressionism in -
 Claude Monet: *Impression: Sunrise*, *Bridge Over a Pool of Lilies* -
 Pierre Auguste Renoir, *Luncheon of the Boating Party* -
 Edgar Degas, a ballet painting such as *Dancing Class*
 Mary Cassatt, *The Boating Party* -

B. POST-IMPRESSIONISM

- Examine characteristics of Post-Impressionism in
 Paul Cezanne: a still life such as *Apples and Oranges*, a version of *Mont Sainte-Victoire*, *The Card Players*
 Georges Seurat and pointillism: *Sunday Afternoon on the Island of the Grande Jatte*
 Vincent van Gogh: *The Starry Night*, one of his *Sunflowers*, a self-portrait such as *Self-Portrait* [1889]
 Paul Gauguin: *Vision After the Sermon, Hail Mary (Ia Orana Maria)*
 Henri Toulouse-Lautrec, *At the Moulin Rouge*
 Art Nouveau as a pervasive style of decoration

C. EXPRESSIONISM AND ABSTRACTION

- Examine representative artists and works, including
 Henri Matisse: *Madame Matisse*, *The Red Room*, cutouts such as *Beasts of the Sea*
 Edvard Munch, *The Scream*
 Marc Chagall, *I and the Village*
 Pablo Picasso's early works, including *Family of Saltimbanques*
- Cubism -
 Pablo Picasso, *Les Femmes d'Alger (O Version 'O')*
 Marcel Duchamp, *Nude Descending a Staircase*
- Picasso after Cubism: *Girl Before a Mirror*, *Guernica*

- Other developers of abstraction:
Vassily Kandinsky, *Improvisation 31 (Sea Battle)*
Paul Klee, *Senecio* (also known as *Head of a Man*)
Piet Mondrian, *Broadway Boogie Woogie*
Salvador Dali and surrealism: *The Persistence of Memory*












D. MODERN AMERICAN PAINTING

- Examine representative artists and works, including
Edward Hopper, *Nighthawks*
Andrew Wyeth, *Christina's World*
Georgia O'Keeffe, *Red Poppies*
- Regionalists, social realists, and genre painters -
Grant Wood, *American Gothic*
Diego Rivera [Mexican], *Detroit Industry*
Norman Rockwell, *Triple Self-Portrait* -

SEE INTRODUCTION, "The Arts in the Curriculum."

I. Elements of Music

Teachers: The Music guidelines for grades 6-8 share a basic vocabulary of the elements of music that can inform the discussion, appreciation, and study of selected musical works. Following these guidelines are recommendations in each grade for a core of musical content, broadly organized as a history of music from early to modern times, with attention to specific periods, composers, and genres. While these guidelines focus on musical vocabulary, appreciation, and history, musical performance should be encouraged and emphasized as local resources allow.

- Review as necessary from earlier grades:
 - The orchestra and families of instruments (strings, wind, brass, percussion); keyboard instruments
 - Vocal ranges: soprano, mezzo-soprano, alto; tenor, baritone, bass
- Recognize frequently used Italian terms:
 - grave* (very very slow)
 - largo* (very slow)
 - adagio* (slow)
 - andante* (moderate; "walking")
 - moderato* (medium)
 - allegro* (fast)
 - presto* (very fast)
 - prestissimo* (as fast as you can go)
 - ritardando* and *accelerando* (gradually slowing down and getting faster)
 - crescendo* and *decrescendo* (gradually increasing and decreasing volume)
 - legato* (smoothly flowing progression of notes), *staccato* (crisp, distinct notes)
- Recognize introduction, interlude, and coda in musical selections.
- Recognize theme and variations.
- Identify chords [such as I (tonic), IV (subdominant), V (dominant); V7]; major and minor chords; chord changes; intervals (third, fourth, fifth).
- Understand what an octave is.
- Understand the following notation and terms:
 - names of lines and spaces in the treble clef; middle C
 -  treble clef  bass clef  staff, bar line, double bar line, measure, repeat signs
 -  whole note  half note  quarter note  eighth note
 - whole rest, half rest, quarter rest, eighth rest
 -  grouped sixteenth notes
 - tied notes and dotted notes
 -  sharps  flats  naturals
 - Da capo* [*DC*] *al fine*
 - meter signature: $\frac{4}{4}$ or common time $\frac{2}{4}$ $\frac{3}{4}$ $\frac{6}{8}$
 - soft *pp* *p* *mp* loud *mf* *f* *ff*

II. Classical Music: Romanticism and Nationalists

Teachers: While these guidelines focus on musical vocabulary, appreciation, and history, musical performance should be encouraged and emphasized as resources allow. The focus here combines music history with appreciation of illustrative works, and continues from grade 6 the idea of classifying Western music by periods, with examples of specific composers and works, as well as some associated musical terms. Timelines may help students situate the periods. The periods and their characteristics are not absolute distinctions but generally helpful categories often used in discussions of music. In sixth grade students studied music and composers from the Baroque to the Romantic.

Note: In sixth grade, students were introduced to works by Beethoven, Brahms, Chopin, and Schumann.

A. ROMANTIC COMPOSERS AND WORKS

- Composers and works: -
Johannes Brahms, *Symphony No. 1* (fourth movement) -
Hector Berlioz, *Symphonie Fantastique* -
Franz Liszt, *Hungarian Rhapsody No. 2* for piano -
Richard Wagner, Overture to *Die Meistersinger von Nürnberg* -

B. MUSIC AND NATIONAL IDENTITY

- Composers and works:
Antonín Dvořák, *Symphony No. 9 ("From the New World")*
Edvard Grieg, *Peer Gynt Suites Nos. 1 and 2*
Peter Ilich Tchaikovsky, *1812 Overture*

III. American Musical Traditions

- Blues -
Evolved from African-American work songs and spirituals -
Twelve bar blues form -
- Jazz
African-American origins
Terms: improvisation, syncopation, solo and soloist
Ragtime: works of Scott Joplin (such as "The Entertainer" and "Maple Leaf Rag")
Louis Armstrong: early recordings such as "Potato Head Blues," "West End Blues," or "St. Louis Blues"
Duke Ellington: "Caravan," "Take the 'A' Train" [by Billy Strayhorn]
Miles Davis: "So What"
Influence of jazz on other music: George Gershwin's *Rhapsody in Blue*

Teachers: In learning the new concepts and procedures, students should use previously acquired mathematics to ensure that the procedures become automatic and habitual. Students should continue to master the use of measuring and drawing instruments, develop their mental arithmetic and their approximating abilities, become more familiar with deductive reasoning, and use calculators and computers in a thoughtful way.

These guidelines are representative of the mathematics typically learned in grade 7 in countries that have strong math traditions and whose students score well in international comparisons. In the United States, most teachers of middle-school mathematics follow commercial math textbooks which vary in quality. Because teachers are often selective about the parts of the textbooks they teach, the following guidelines may prove useful as an outline by which the teacher can, regardless of the textbook adopted, make sure the competencies taught in their programs are comparable to the competencies of students in the best-achieving systems.

While teaching methods may vary, it is worth keeping in mind the psychological principle that the most effective method for learning mathematics emphasizes frequent, varied practice, and encourages multiple approaches to solving varied types of problems.

I. Pre-Algebra

A. PROPERTIES OF THE REAL NUMBERS

- Know and use the associative, commutative, and distributive properties by name and in simplifying expressions involving numbers and variables.
- Understand absolute value and evaluate expressions such as $|2x - 3| + 3x$.

B. LINEAR APPLICATIONS AND PROPORTIONALITY

- Know the concept of slope.
- Translate situations of proportionality into equations of the form $y = mx$, where m is the constant of proportionality or slope; specifically know and understand $d = rt$ and $i = prt$.
- Show situations of constant proportionality as a line on the coordinate plane.
- Introduce the concept of a function and determine the equation of a linear function given its slope and intercepts in the form $y = mx + b$.
- Estimate the values of b and m from a given linear graph.

C. POLYNOMIAL ARITHMETIC

- Add, subtract, multiply, and divide monomials and polynomials (divide polynomials by monomials only).
- Factor binomials that have a common monomial factor.

D. EQUIVALENT EQUATIONS AND INEQUALITIES

- Review equality properties for equations.
- Know that addition or subtraction of the same value from both sides of an inequality maintains the inequality.
- Know that multiplying or dividing both sides of an inequality by a positive number maintains the inequality, but multiplying or dividing by a negative number reverses the inequality; be able to show why using a number line.
- Simplify and solve linear equations in one variable such as $3(2x - 5) + 4x = 12(x + 5)$.
- Simplify and graph solutions to linear inequalities in one variable such as $3(2x - 5) + 4x \leq 12(x + 5)$.

E. INTEGER EXPONENTS

- Know the meaning of an exponent n when n is positive or negative.
- Know that a non-zero number to the zero power is one.

- Understand why a negative number to an even power is positive and a negative number to odd power is negative.
- Know the multiplication properties of exponents:
Product of powers: $(a^m)(a^n) = a^{(m+n)}$ -
Power of a power: $(a^m)^n = a^{mn}$ -
Power of a product: $(ab)^m = (a^m)(b^m)$. -
- Convert decimal numbers to and from scientific notation.
- Know the proper order of operations with exponents.

II. Geometry

A. THREE-DIMENSIONAL OBJECTS

- Describe and construct simple right prisms, cylinders, cones, and spheres using the concepts of parallel and perpendicular; calculate the surface areas and volumes of these objects.
- Know that the section created by the intersection of a plane and a sphere is a circle.
- Calculate the surface area of a sphere using the equation $SA = 4 \pi r^2$.
- Calculate the volume of a sphere using the equation $V = (4/3) \pi r^3$.

B. ANGLE PAIRS

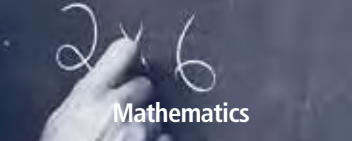
- Construct parallel lines and a transversal using a compass and straight edge.
- Understand congruent angles, vertical angles, complementary angles, supplementary angles, adjacent angles, corresponding angles, and alternate interior and alternate exterior angles.

C. TRIANGLES

- Know that a triangle is determined by its three sides or by two sides and the included angle (SSS and SAS triangle congruence) and solve problems.
- Use SSS to prove that the construction of the bisector of an angle is valid.
- Use SSS to prove that the construction of the perpendicular bisector of a segment is valid.
- Prove that the base angles of an isosceles triangle are congruent.
- Demonstrate that the sum of the interior angles of a triangle equals 180 degrees.
- Know that the shape of a triangle is determined by two (hence all three) of its angles (AA(A) triangle similarity) and solve related problems.
- Construct a circle that circumscribes a triangle using compass and straight edge.
- Know and understand the Pythagorean Theorem and its converse and use it to find the length of the missing side of a right triangle and lengths of other line segments and, in some situations, empirically verify the Pythagorean theorem by direct measurement and a calculator.
- Use the Pythagorean Theorem to determine the exact ratios of the sides in 30-60-right triangles and isosceles right triangles.
- Determine the image of a triangle under translations, rotations, and reflections.

D. MEASUREMENT

- Choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems.
- Compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems (for example, miles per hour and feet per second, cubic inches to cubic centimeters).
- Use measures expressed as rates (for example, speed, density) and measures expressed as products (for example, person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.
- Compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less common objects.
- Know how perimeter, area, and volume are affected by changes of scale.



- Estimate and compute the area of more complex or irregular two- and three-dimensional figures by breaking the figures down into more basic geometric objects.
- Relate the changes in measurement with a change of scale to the units used (for example, square inches, cubic feet) and to conversions between units (1 square foot = 144 square inches or $[1 \text{ ft}^2 = 144 \text{ in}^2]$, 1 cubic inch is approximately 16.38 cubic centimeters $[1 \text{ in}^3 = [16.36 \text{ cm}^3])$.

III. Probability and Statistics

- Show the relationship between two variables using a scatter-plot and describe the apparent relationship informally.
- Find the upper and lower quartiles for a data set.
- Understand that if p is the probability of an event occurring, $1 - p$ is the probability of the event not occurring.
- Understand the difference between independent and dependent events.

Science: Grade 7

Teachers: Effective instruction in science requires not only direct experience and observation but also book learning, which helps bring coherence and order to a student's scientific knowledge. Only when topics are presented systematically and clearly can students make steady and secure progress in their scientific learning. The Science sequence for the middle school grades aims for more intensive and selective study of topics, a number of which were introduced in earlier grades. The Sequence continues the practice of studying topics from each of the major realms of science (physical, life, and earth science). Students are expected to do experiments and write reports on their findings.

I. Atomic Structure

- Review (from grade 5): Structure of atoms: protons, neutron, electrons
Molecules
Compounds are formed by combining two or more elements and have properties different from the constituent elements.
- Early theories of matter
The early Greek theory of four elements: earth, air, fire, and water
Later theories of Democritus: everything is made of atoms and nothing else ("atom" in Greek means that which can't be cut or divided); atoms of the same kind form a pure "element"
Alchemy in middle ages
- Start of modern chemistry
Lavoisier and oxygen: the idea that matter is not gained or lost in chemical reactions
John Dalton revives the theory of the atom.
Mendeleev develops the Periodic Table, showing that the properties of atoms of elements come in repeating (periodic) groups.
Niels Bohr develops a model of the atom in shells that hold a certain number of electrons. Bohr's model, plus the discovery of neutrons, helped explain the Periodic Table: atomic number, atomic weight, and isotopes.

See below, Science
Biographies, Lavoisier and
Mendeleev.

II. Chemical Bonds and Reactions

- To get a stable outer shell of electrons, atoms either give away, take on, or share electrons.
- Chemical reactions rearrange the atoms and the electrons in elements and compounds to form chemical bonds.
- When single atoms combine with themselves or with other atoms, the result is a molecule.
 O_2 is a molecule of oxygen. $NaCl$ is a molecule of salt, and because it has more than one element is called a compound.
- Ionic bond
Atoms like sodium that have just one or two extra electrons are very energetic in giving them away. Elements with the same number of extra or few electrons can join with each other to make an ionic bond. Example: $NaCl$, table salt.
- Metallic bond
In the metallic bond, electrons are not given away between elements, but are arranged so that they are shared between atoms. Pure metals show this sharing, and the atoms can rearrange themselves in different ways, which explains why you can pound metals into different shapes.



Note: A useful mnemonic device is "OIL RIG" — "oxidation is loss, reduction is gain."

- Covalent bond
Some atoms share electrons in a definite way, making them very stable and unreactive. Examples are H_2 and O_2 . Carbon, which can take up or give away 4 electrons in covalent bonds, can help make molecules that can adopt almost any shape. It is the basis of life.
- Kinds of reactions
Oxidation: a chemical reaction that commonly involves oxygen. More generally, oxidation is a reaction in which an atom accepts electrons while combining with other elements. The atom that gives away electrons is said to be oxidized. Examples: rusting of iron, burning of paper. Heat is given off.
Reduction: the opposite of oxidation. Reduction involves the gaining of electrons. An oxidized material gives them away and heat is taken up.
Acids: for example, vinegar, HCl , H_2SO_4 ; sour; turn litmus red
Bases: for example, baking soda; bitter; turn litmus blue
pH: ranges from 0-14; neutral = 7, acid = below 7, base = above 7
Reactions with acids and bases
In water solution, an acid compound has an H ion (a proton lacking an electron), and the base compound has an OH ion (with an extra electron).
When the two come together, they form HOH (water) plus a stable compound called a "salt."
- How chemists describe reactions by equations, for example: $HCl + NaOH = NaCl + H_2O$
- A catalyst helps a reaction, but is not used up.

III. Cell Division and Genetics

Note: Review from grade 5: Cell Structures and Processes.

- Cell division, the basic process for growth and reproduction
Two types of cell division: mitosis (growth and asexual reproduction), meiosis (sexual reproduction)
Asexual reproduction: mitosis; diploid cells (as in amoeba)
Sexual reproduction: meiosis; haploid cells; combinations of traits
How change occurs from one generation to another: either mutation or mixing of traits through sexual reproduction
Why acquired characteristics are not transmitted
- Gregor Mendel's experiments with purebred and hybrid peas
Dominant and recessive genes
Mendel's statistical analysis led to understanding that inherited traits are controlled by genes (now known to be DNA).
- Modern understanding of chromosomes and genes
Double helix (twisted ladder) of DNA coding; how DNA makes new DNA
How DNA sequence makes proteins
Genetic engineering
Modern researchers in genetics: Francis Crick, James Watson, Severo Ochoa, Barbara McClintock

IV. History of the Earth and Life Forms

A. PALEONTOLOGY

- Fossils as a record of the Earth's history and past life forms
- How fossils are formed, and types of fossils (mold, cast, trace, true-form)

B. GEOLOGIC TIME

- The age of the earth is about 4.6 billion years, based on geologic evidence and radioactive dating. Life has existed on earth for more than 3 billion years.
How movements of the earth's plates have affected the distribution of organisms

- Organizing geologic time: Scientists have organized the earth's history into four major eras:
 Precambrian Era (earliest forms of life, such as bacteria and blue-green algae; later in the period, invertebrates such as jellyfish)
 Paleozoic Era (Pangaea; invertebrate life, such as trilobites, early in this era, followed by development of vertebrates later in the era, including fish; development of insects, amphibians, and the beginnings of reptiles; development of simple plants, such as mosses and ferns)
 Mesozoic Era (Pangaea separates into continents; "Age of Reptiles"; dinosaurs, flowering plants, small mammals and birds)
 Cenozoic (Present) Era (Ice Age; mammoths; gradual development of mammals, birds and other animals recognizable today; humans; flowering plants, forests, grasslands)

V. Evolution

A. EVOLUTION

- Evolution is the change in a population of organisms over time caused by both genetic change and environmental factors.
 Adaptation and mutation
- Charles Darwin: voyages of the *Beagle*; *Origin of Species* (1859)

See below, Science
Biographies, Charles Darwin.

B. NATURAL SELECTION

- Natural selection as the mechanism of evolution: Darwin's theory that life forms better adapted to their current environment have a better chance of surviving and will pass on their traits to their offspring
 Trait variation and change from generation to generation
- Evidence for the theory of evolution includes comparative anatomy, geology, fossils, and DNA research.

C. EXTINCTION AND SPECIATION

- Extinction occurs when an environment changes and a species is no longer adapted to it.
- New species can develop when part of the population becomes separated and evolves in isolation.
- Life forms have evolved from simple organisms in oceans through amphibians to higher forms such as primates.

VI. Science Biographies

See above, Evolution re
Darwin; Atomic Structure:
Start of modern chemistry, re
Lavoisier and Mendeleev.

Charles Darwin (scientist known for theory of natural selection) -
 Antoine Lavoisier (chemist who discovered the process of oxidation) -
 Lise Meitner (physicist who helped discover nuclear fission) -
 Dmitri Mendeleev (scientist who devised the periodic table) -



Grade 8

Overview of Topics

Grade 8

English

- I. Writing, Grammar, and Usage
 - A. Writing and Research
 - B. Speaking and Listening
 - C. Grammar
 - D. Spelling
 - E. Vocabulary
- II. Poetry
 - A. Poems
 - B. Elements of Poetry
- III. Fiction, Nonfiction, and Drama
 - A. Short Stories
 - B. Novels
 - C. Elements of Fiction
 - D. Essays and Speeches
 - E. Autobiography
 - F. Drama
 - G. Literary Terms
- IV. Foreign Phrases Commonly Used in English

History and Geography

- I. The Decline of European Colonialism
 - A. Breakup of the British Empire
 - B. Creation of the People's Republic of China
- II. The Cold War
 - A. Origins of the Cold War
 - B. The Korean War
 - C. America in the Cold War
- III. The Civil Rights Movement
- IV. The Vietnam War and the Rise of Social Activism
 - A. The Vietnam War
 - B. Social and Environmental Activism
- V. The Middle East and Oil Politics
 - A. History
 - B. Geography of the Middle East
- VI. The End of the Cold War: The Expansion of Democracy and Continuing Challenges
 - A. The American Policy of Detente
 - B. Breakup of the USSR
 - C. China under Communism
 - D. Contemporary Europe
 - E. The End of Apartheid in South Africa

- VII. Civics: The Constitution—Principles and Structure of American Democracy
- VIII. Geography of Canada and Mexico

Visual Arts

- I. Art History: Periods and Schools
 - A. Painting Since World War II
 - B. Photography
 - C. 20th-Century Sculpture
- II. Architecture Since the Industrial Revolution

Music

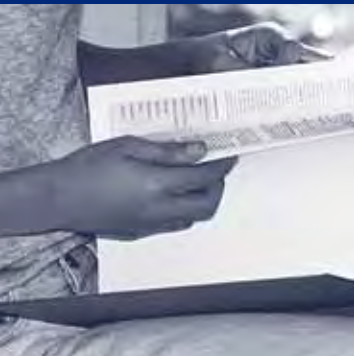
- I. Elements of Music
- II. Non-Western Music
- III. Classical Music: Nationalists and Moderns
 - A. Music and National Identity
 - B. Modern Music
- IV. Vocal Music
 - A. Opera
 - B. American Musical Theater

Mathematics

- I. Algebra
 - A. Properties of the Real Numbers
 - B. Relations, Functions, and Graphs (Two Variables)
 - C. Linear Equations and Functions (Two Variables)
 - D. Arithmetic of Rational Expression
 - E. Quadratic Equations and Functions
- II. Geometry
 - A. Analytic Geometry
 - B. Introduction to Trigonometry
 - C. Triangles and Proofs

Science

- I. Physics
 - A. Motion
 - B. Forces
 - C. Density and Buoyancy
 - D. Work
 - E. Energy
 - F. Power
- II. Electricity and Magnetism
- III. Electromagnetic Radiation and Light
- IV. Sound Waves
- V. Chemistry of Food and Respiration
- VI. Science Biographies



See also English 6 for more guidelines on writing persuasive essays.

I. Writing, Grammar, and Usage

Teachers: Students should be given opportunities to write fiction, poetry, or drama, but instruction should emphasize repeated expository writing. Students should examine their work with attention to unity, coherence, and emphasis. Expository essays should have a main point and stick to it, and have a coherent structure, typically following the pattern of introduction, body, and conclusion. Paragraphs should have a unified focus, be developed with evidence and examples, and have transitions between them. Essays should have appropriate tone and diction, as well as correct spelling and grammar in their final form. Standards for writing apply across the disciplines.

A. WRITING AND RESEARCH

- Expository writing: Write essays that describe, narrate, persuade, and compare and contrast. -
- Write research essays, with attention to
 - asking open-ended questions
 - gathering relevant data through library and field research
 - summarizing, paraphrasing, and quoting accurately when taking notes
 - defining a thesis (that is, a central proposition, a main idea)
 - organizing with an outline
 - integrating quotations from sources
 - acknowledging sources and avoiding plagiarism
 - preparing a bibliography

B. SPEAKING AND LISTENING

- Participate civilly and productively in group discussions.
- Give a short speech to the class that is well-organized and well-supported.
- Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.

C. GRAMMAR

Teachers: Students should have a working understanding of the following terms and be able to use them to discuss and analyze writing.

Punctuation

- Review punctuation based on sentence structure, including -
 - semi-colons -
 - commas with phrases and clauses -
- Review other punctuation, including -
 - punctuation of quotations, dialogue -
 - use of parentheses -
 - hyphens -
 - dashes -
 - colons -
 - italics -
 - apostrophes -

Misplaced modifiers

- Phrases and clauses go as near as possible to the word(s) they modify. -
 - Dangling modifiers -
 - Two-way modifiers -

Parallelism

- Parallelism is expressing ideas of equal importance using the same grammatical constructions. -
- Kinds of parallelism -
 - coordinate (using coordinating conjunctions *and, but, or, nor, yet*) -
 - compared/contrasted -
 - correlative (both . . . and, either . . . or, neither . . . nor, not only . . . but also) -
- Correcting faulty parallelism -
 - repeating words (articles, prepositions, pronouns) to maintain parallelism -
 - completing parallel construction -
 - revising sentences using parallel structure (for example, using all gerund phrases, or all noun clauses)

Sentence variety

- Review sentences classified by structure: simple, compound, complex, compound-complex. -
- Varying sentence length and structure to avoid monotony
- Varying sentence openings

D. SPELLING

- Continue work with spelling, with special attention to commonly misspelled words, including: -

absence	counterfeit	guarantee	permanence -
accommodate	courageous	hygiene	physician -
analysis	curiosity	independence	prairie -
attendance	defendant	laboratory	sergeant -
believe	dessert	library	souvenir -
bureau	desperate	lightning	straight -
capitol	dissatisfied	maintenance	technique -
colonel	extraordinary	mileage	temporary -
committee	fascinating	necessary	vacuum -
correspondence	foreign	occurrence	whether -

E. VOCABULARY

Teachers: Students should know the meaning of these Latin and Greek words and be able to give examples of English words that are based on them.

Note: More Latin and Greek words and roots are listed in grades 6 and 7. In the listings here, L = Latin, G = Greek. No single form of the Latin or Greek words is consistently used here, but rather the form that is most similar to related English words.

<u>Latin /Greek Word</u>	<u>Meaning</u>	<u>Examples</u>
aequus [L]	equal	equal, equation -
ago, acta [L]	do, things done	agent, enact, transact -
anthropos [G]	man, human being	anthropology, misanthrope -
ars [L]	art	artist, artifact -
brevis [L]	short	brevity, abbreviate -
canto [L]	sing	chant, cantor -
caput [L]	head	captain, decapitate -
clino [L]	to lean, bend	incline, decline -
cognito [L]	know	cognizant, recognize -
copia [L]	plenty	copy, copious -
credo [L]	believe	credible, incredulous -
culpa [L]	blame	culpable, culprit -
dominus [L]	a lord, master	dominate, dominion -
duco [L]	lead	abduct, introduce -
fido [L]	to trust, believe	confide, infidel -
fundo, fusum [L]	pour, thing poured	effusive, transfusion -
genus [L]	kind, origin	generic, congenital -

holos [G]	whole	holistic, catholic
jungo [L]	join	junction, conjugal
lego, lectum [L]	read, thing read	intellect, legible
locus [L]	a place	local, dislocate
loquor [L]	speak	eloquent, loquacious
medius [L]	middle	mediate, mediocrity
missio [L]	a sending	emissary, mission
morior [L]	die	mortal
nego [L]	deny	negate
nihil [L]	nothing	nihilism, annihilate
occido [L]	kill	homicide, suicide
pathos[G]	suffering, feeling	sympathy, apathy
pendo [L]	weigh, hang	depend, pendant
per [L]	through	perceive, persist, persevere
phobos [G]	fear	phobia, claustrophobia
plenus [L]	full	plenty, plenary
positum [L]	placed	position, opposite
porto [L]	carry	transport, export
possum [L]	be able	possible, potent
pugno [L]	to fight	impugn, pugnacious
punctum [L]	point	punctual, punctuation
rego [L]	to rule	regular, regency
sanguis [L]	blood	sanguine
satis [L]	enough	satisfy
scio [L]	know	science, conscious
solus [L]	alone	solo, desolate
sonus [L]	a sound	unison, consonant
sophos [G]	wise	philosophy, sophomore
spiritus [L]	breath	inspire, spirit
totus [L]	whole	totalitarianism
tractum [L]	drawn, pulled	distract, tractor
usus [L]	use	abuse, utensil
vacuus [L]	empty	evacuate, vacuum
verbum [L]	word	verbal
verto [L]	turn	avert, convert, anniversary
via [L]	way, road	deviate, viaduct

II. Poetry

A. POEMS

Buffalo Bill's (e.e. cummings)

Chicago (Carl Sandburg)

Do Not Go Gentle into That Good Night (Dylan Thomas)

How do I love thee? (Elizabeth Barrett Browning)

How They Brought the Good News From Ghent to Aix (Robert Browning)

I dwell in possibility; Apparently with no surprise (Emily Dickinson)

The Lake Isle of Innisfree (William B. Yeats)

Lucy Gray (or Solitude); My Heart Leaps Up (William Wordsworth)

Mending Wall; The Gift Outright (Robert Frost)

Mr. Flood's Party (Edward Arlington Robinson)

Polonius's speech from *Hamlet*, "Neither a borrower nor a lender be . . ."

(William Shakespeare)

Ozymandias (Percy Bysshe Shelley)

Sonnet 18, "Shall I compare thee. . ." (William Shakespeare)

Spring and Fall (Gerald Manley Hopkins)

Note: The poems listed here constitute a selected core of poetry for this grade. You are encouraged to expose students to more poetry, old and new, and to have students write their own poems. Students should examine some poems in detail, discussing what the poems mean as well as asking questions about the poet's use of language.

A Supermarket in California (Allen Ginsberg) -
 Theme for English B (Langston Hughes) -
 We Real Cool (Gwendolyn Brooks) -

B. ELEMENTS OF POETRY

- Review: meter, iamb, rhyme scheme, free verse, couplet, onomatopoeia, alliteration, assonance -
- Review: -
 - forms: ballad, sonnet, lyric, narrative, limerick, haiku -
 - stanzas and refrains -
 - types of rhyme: end, internal, slant, eye -
 - metaphor and simile -
 - extended and mixed metaphors -
 - imagery, symbol, personification -
 - allusion -

III. Fiction, Nonfiction, and Drama

A. SHORT STORIES

“The Bet” (Anton Chekov) -
 “Dr. Heidegger’s Experiment” (Nathaniel Hawthorne) -
 “God Sees the Truth But Waits” (Leo Tolstoy) -
 “An Honest Thief” (Fyodor Dostoyevsky) -
 “The Open Boat” (Stephen Crane) -

B. NOVELS

Animal Farm (George Orwell) -
The Good Earth (Pearl S. Buck) -

C. ELEMENTS OF FICTION

- Review:
 - plot and setting
 - theme
 - point of view in narration: omniscient narrator, unreliable narrator, third person limited, first person -
 - conflict: external and internal -
 - suspense and climax -
- Characterization
 - as delineated through a character’s thoughts, words, and deeds; through the narrator’s description; and through what other characters say
 - flat and round; static and dynamic
 - motivation
 - protagonist and antagonist
- Tone and diction

D. ESSAYS AND SPEECHES

“Ask not what your country can do for you” (John F. Kennedy’s Inaugural Address) -
 “I have a dream”; “Letter from Birmingham Jail” (Martin Luther King, Jr.) -
 “Death of a Pig” (E. B. White) -
 “The Marginal World” (Rachel Carson) -

E. AUTOBIOGRAPHY

Selections (such as chapters 2 and 16) from *I Know Why the Caged Bird Sings* (Maya Angelou)

Note: See also History 8: The Kennedy Years, re J. F. Kennedy; The Civil Rights Movement, re M. L. King, Jr.; and, Emergence of Environmentalism, re Rachel Carson.

F. DRAMA

- *Twelfth Night* (William Shakespeare)
- Elements of Drama
 - Review:
 - tragedy and comedy
 - aspects of conflict, suspense, and characterization
 - soliloquies and asides
 - Farce and satire
 - Aspects of performance and staging -
 - actors and directors -
 - sets, costumes, props, lighting, music -
 - presence of an audience -

G. LITERARY TERMS

- Irony: verbal, situational, dramatic
- Flashbacks and foreshadowing
- Hyperbole, oxymoron, parody

IV. Foreign Phrases Commonly Used in English

Teachers: Students should learn the meaning of the following French words and phrases that are commonly used in English speech and writing.

au revoir - goodbye, until we see each other again
 avant-garde - a group developing new or experimental concepts, a vanguard
 bête noire - a person or thing especially dreaded and avoided [literally, “black beast”]
 c’est la vie - that’s life, that’s how things happen
 carte blanche - full discretionary power [literally, “blank page”]
 cause célèbre - a very controversial issue that generates fervent public debate [literally, a “celebrated case”]
 coup de grâce - a decisive finishing blow
 coup d’état - overthrow of a government by a group
 déjà vu - something overly familiar [literally, “already seen”]
 enfant terrible - one whose remarks or actions cause embarrassment, or someone strikingly unconventional [literally, “terrible child”]
 fait accompli - an accomplished fact, presumably irreversible
 faux pas - a social blunder [literally, “false step”]
 Madame, Mademoiselle, Monsieur - Mrs., Miss, Mr.
 merci - thank you
 pièce de résistance - the principal part of the meal, a showpiece item
 raison d’être - reason for being
 savoir-faire - the ability to say or do the right thing in any situation, polished sureness in society [literally, “to know (how) to do”]
 tête-à-tête - private conversation between two people [literally, “head to head”]

History and Geography: Grade 8

Teachers: In grades K–6, the history guidelines in the *Core Knowledge Sequence* were organized into separate strands on World History and American History. Because the World and American History strands merged chronologically in sixth grade, the *Sequence* presents a unified section on History and Geography in grades seven and eight. Central themes of the history guidelines in grades seven and eight are growth and change in American democracy, and interactions with world forces, particularly nationalism and totalitarianism. Fundamental principles and structure of American government are reviewed in a civics unit in this grade.

The study of geography aims at understanding the spatial relationship between nature and human culture and processes that change environments. Following the main outline of the history curriculum, eighth graders study the Middle East, South Asia, China, Canada, Mexico, and post-Cold War changes. Students should learn locations as well as the relationships between physical and human systems.

I. The Decline of European Colonialism

A. BREAKUP OF THE BRITISH EMPIRE

- Creation of British Commonwealth, independence for colonial territories
- Troubled Ireland: Easter Rebellion, Irish Free State
- Indian nationalism and independence -
 - Sepoy Rebellion -
 - Mahatma Gandhi, Salt March -
 - Partition of India into Hindu and Muslim states -
- Geography of India and South Asia
 - Overview
 - Legacy of British colonial rule: English language, rail system
 - Himalayas, Mt. Everest, K-2
 - Very high population densities and growth rates, food shortages
 - Monsoons
 - Rivers: Ganges, Indus, Brahmaputra
 - Arabian Sea, Bay of Bengal
 - Pakistan, Karachi
 - Bangladesh
 - Sri Lanka
 - India -
 - Second most populous country after China -
 - Subsistence agriculture -
 - Caste system, “untouchables” -
 - Delhi, Bombay, Calcutta, Madras -
 - Longstanding tension between Hindus and Moslems -

B. CREATION OF PEOPLE’S REPUBLIC OF CHINA

- China under European domination -
 - Opium Wars, Boxer Rebellion -
 - Sun Yat Sen -
- Communists take power -
 - Mao Zedong: The Long March -
 - Defeat of nationalists led by Chiang Kai-Shek -
 - Soviet-Communist Chinese 30-Year Friendship Treaty -

Note: You are encouraged to use timelines to help students place these events in chronological context relative to their prior study in grade 7 of World Wars I and II.

- Geography of China
 - Overview
 - One-fifth of world population
 - 4,000-year-old culture
 - Third largest national territory, regional climates
 - Physical features
 - Huang He (Yellow) River, Chang Jiang (Yangtze) River
 - Tibetan Plateau, Gobi Desert
 - Yellow Sea, East China Sea, South China Sea
 - Great Wall, Grand Canal
 - Social and economic characteristics
 - Major cities: Beijing, Shanghai, Guangzhou (formerly Canton), Shenyang
 - World's largest producer of coal and agricultural products, major mineral producer
 - Off-shore oil reserves
 - Multi-dialectal, including Mandarin, Cantonese
 - Hong Kong, special coastal economic zones
 - Taiwan, Taipei

II. The Cold War

A. ORIGINS OF THE COLD WAR

- Post-WWII devastation in Europe, Marshall Plan, Bretton Woods Conference
- Western fear of communist expansion, Soviet fear of capitalist influences
- Truman Doctrine, policy of containment of communism
 - Formation of NATO, Warsaw Pact
 - The “Iron Curtain” (Churchill)
 - Berlin Airlift
 - Eastern European resistance, Hungarian Revolution, Berlin Wall, Prague Spring

B. THE KOREAN WAR

- Inchon, Chinese entry, removal of MacArthur
- Partition of Korea, truce line near the 38th Parallel

C. AMERICA IN THE COLD WAR

- McCarthyism, House Un-American Activities Committee, “witch hunts”
 - Hollywood Blacklist
 - Spy cases: Alger Hiss, Julius and Ethel Rosenberg
- The Eisenhower Years
 - Secret operations, CIA, FBI counterespionage, J. Edgar Hoover, U-2 incident
 - Soviet Sputnik satellite, “Missile Gap”, Yuri Gagarin
 - Eisenhower’s farewell speech, the “military-industrial complex”
- The Kennedy Years, “Ask not what your country can do for you . . .”
 - Attack on organized crime, Robert F. Kennedy
 - Cuban Missile Crisis, Fidel Castro, Bay of Pigs invasion
 - Nuclear deterrence, “mutual assured destruction,” Nuclear Test Ban Treaty
 - Kennedy assassination in 1963, Lee Harvey Oswald, Warren Commission
- Space exploration, U.S. moon landing, Neil Armstrong
- American culture in the '50s and '60s
 - Levittown and the rise of the suburban lifestyle, automobile-centered city planning
 - Influence of television
 - Baby Boom generation, rock and roll, Woodstock festival, 26th Amendment

See also English 8: III.D, JFK’s Inaugural Address.

III. The Civil Rights Movement

- Segregation
 - Plessy v. Ferguson*, doctrine of “separate but equal”
 - “Jim Crow” laws
- Post-war steps toward desegregation
 - Jackie Robinson breaks color barrier in baseball
 - Truman desegregates Armed Forces
 - Adam Clayton Powell, Harlem congressman
 - Integration of public schools: *Brown v. Board of Education* (1954), Thurgood Marshall
- Montgomery Bus Boycott, Rosa Parks
- Southern “massive resistance”
 - Federal troops open schools in Little Rock, Arkansas
 - Murder of Medgar Evers
 - Alabama Governor George Wallace “stands in schoolhouse door”
- Nonviolent challenges to segregation: “We shall overcome”
 - Woolworth lunch counter sit-ins
 - Freedom riders, CORE
 - Black voter registration drives
 - Martin Luther King, Jr.
 - Southern Christian Leadership Conference
 - March on Washington, “I have a dream” speech
 - “Letter from Birmingham Jail”
 - Selma to Montgomery March
- President Johnson and the civil rights movement
 - The Great Society, War on Poverty, Medicare
 - Civil Rights Act of 1964, Voting Rights Act of 1965, affirmative action
- African American militance
 - Malcolm X
 - Black Power, Black Panthers
 - Watts and Newark riots
- Assassinations of Martin Luther King, Jr., and Robert F. Kennedy

See also English 8: III.D,
Essays and Speeches,
King’s “I have a dream”
speech and “Letter from
Birmingham Jail.”

IV. The Vietnam War and the Rise of Social Activism

A. THE VIETNAM WAR

- French Indochina War: Dien Bien Phu, Ho Chi Minh, Viet Cong
- Domino Theory
- U.S. takes charge of the war, Special Forces, Tonkin Gulf Resolution
- Tet Offensive, My Lai Massacre
- Antiwar protests, Kent State, The Pentagon Papers, “hawks” and “doves”
- American disengagement, Nixon’s “Vietnamization” policy, Kissinger, War Powers Act
- Watergate scandal, resignation of Nixon
- Vietnam, Hanoi, Ho Chi Minh City (formerly Saigon)

B. SOCIAL AND ENVIRONMENTAL ACTIVISM

- Feminist movement, “women’s liberation”
 - Betty Friedan, National Organization for Women
 - Roe v. Wade*
 - Failure of the Equal Rights Amendment
- Cesar Chavez, United Farm Workers
- American Indian Movement
 - Second Wounded Knee
 - Federal recognition of Indian right to self-determination
- Emergence of environmentalism
 - Rachel Carson, *Silent Spring*
 - Environmental Protection Agency, Endangered Species Act, Clean Air and Water Acts
 - Disasters such as Love Canal, Three Mile Island, Chernobyl, Exxon Valdez

See also Visual Arts 8: 20th
Century Sculpture, Vietnam
Veterans Memorial.

V. The Middle East and Oil Politics

A. HISTORY

- League of Nations' territorial mandates in Middle East
- Creation of Israel in 1948, David Ben-Gurion
- Suez Crisis, Gamal Abal Nasser
- Palestine Liberation Organization, Yasser Arafat
- Arab-Israeli Wars
 - Six-Day War, Israel occupies West Bank, Gaza Strip, Golan Heights
 - Yom Kippur War, OPEC oil embargo
- Camp David Peace Treaty
- Islamic fundamentalism, Iranian hostage crisis, Iran-Iraq War
- Persian Gulf War
- September 11, 2001 attacks
- Iraq war

B. GEOGRAPHY OF THE MIDDLE EAST

- Overview
 - Heartland of great early civilizations, Nile River, Mesopotamia, "Fertile Crescent"
 - Generally hot, arid conditions with thin, poor soils
 - Generally speak Arabic, except in Turkey (Turkish), Israel (Hebrew), Iran (Persian)
 - Predominant religion is Islam
 - Sunni and Shiite sects
 - Principal holy places: Makkah (also spelled Mecca) and Medina in Saudi Arabia
- Oil: world's most valuable commodity
 - Greatest known oil reserves concentrated around the Persian Gulf
 - Strait of Hormuz, shipping routes and national imports
 - Extraction of Arab oil required Western technology, which introduced competing cultural influences to Islam
- Egypt
 - Most populous Arab country
 - Nile River and delta, surrounded by inhospitable deserts
 - Aswan Dam, Lake Nasser
 - Cairo (largest city in Africa), Alexandria
 - Suez Canal, Sinai Peninsula, Red Sea
- Israel
 - Formed by the United Nations in 1948 as homeland for Jewish people
 - Jerusalem: Holy city for Judaism (Wailing Wall, Temple Mount), Christianity (Church of the Holy Sepulcher), and Islam (Dome of the Rock)
 - Tel Aviv, West Bank, Gaza Strip, Golan Heights
 - Jordan River, Sea of Galilee, Dead Sea (lowest point on earth), Gulf of Aqaba
- Middle East states and cities
 - Lebanon: Beirut
 - Jordan: Amman
 - Syria: Damascus
 - Iraq: Baghdad
 - Kurdish minority population (also in Turkey and Iran)
 - Iran: Tehran
 - Kuwait
 - Saudi Arabia: Riyadh, Makkah
- Turkey
 - Istanbul (formerly Constantinople)
 - Bosphorus, Dardanelles
 - Ataturk Dam controls upper Euphrates River

Note: Review from grade 4, World History III.A, Islam.

Note: It is recommended that you examine with students a map of the world's oil reserves.

VI. The End of the Cold War: The Expansion of Democracy and Continuing Challenges

A. THE AMERICAN POLICY OF DÉTENTE

- Diplomatic opening to China
- Strategic Arms Limitation Talks
- Jimmy Carter's human rights basis for diplomacy

B. BREAKUP OF THE USSR

- History
 - Arms race exhausts USSR economy, Afghanistan War
 - Helsinki Accord on human rights, Andrei Sakharov
 - Mikhail Gorbachev
 - Solidarity labor movement, Lech Walesa
 - Reunification of Germany, demolition of the Berlin Wall
- Geography
 - Consequences of the breakup of the Soviet Union
 - New European states from former Soviet Union:
 - Belarus, Latvia, Lithuania, Moldova, Ukraine
 - Newly independent Muslim states in Asia (with ethnic Russian minorities):
 - Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan
 - Caucasus, mountainous region where Western and Islamic cultures meet:
 - Armenia, Azerbaijan, Georgia
- Legacies of Soviet policies
 - Numerous internal republics, many language distinctions
 - Forced relocation of large numbers of ethnic minorities
 - Environmental poisoning from industrial and farm practices

C. CHINA UNDER COMMUNISM

- The Cultural Revolution
- Tiananmen Square

D. CONTEMPORARY EUROPE

- Toward European unity
 - European Economic Community, "Common Market"
 - European Parliament, Brussels, Maastricht Treaty on European Union
 - France linked to Britain by the Channel Tunnel ("Chunnel")
 - European Union; the Euro
- Conflict and change in Central Europe
 - Geography of the Balkan region
 - Ethnically fragmented, mixture of languages and religions
 - Mountainous region, Danube River
 - Seas: Adriatic, Ionian, Black, Aegean, Mediterranean
 - Romania, Bulgaria, Greece, Albania
 - Countries that emerged from the breakup of Yugoslavia: Slovenia, Croatia, Bosnia and Herzegovina, Macedonia
 - Bosnian conflict
 - "Balkanization"

E. THE END OF APARTHEID IN SOUTH AFRICA

- Background
 - British and Dutch colonialism in South Africa, Cecil Rhodes, Afrikaners
 - African resistance, Zulu wars, Shaka
 - Boer Wars
 - Union of South Africa, majority nonwhite population but white minority rule
 - Apartheid laws
- African National Congress
 - Nelson Mandela

- Internal unrest and external pressures (such as economic sanctions) force South Africa to end apartheid, Mandela released

VII. Civics: The Constitution—Principles and Structure of American Democracy

- Overview of the U.S. Constitution -
 - James Madison -
 - Founders' view of human nature -
 - Concept of popular sovereignty, the Preamble -
 - Rule of law -
 - Separation of powers -
 - Checks and balances -
 - Enumeration of powers -
 - Separation of church and state -
 - Civilian control of the military -
- Bill of Rights -
 - Amendments protecting individual rights from infringement (1-3) -
 - Amendments protecting those accused of crimes (5-8), Miranda ruling -
 - Amendments reserving powers to the people and states (9 and 10) -
 - Amendment process -
 - Amendments 13 and 19 -
- Legislative branch: role and powers of Congress -
 - Legislative and representative duties -
 - Structure of the Congress, committee system, how a bill is passed -
 - Budget authority, "power of the purse" -
 - Power to impeach the president or federal judge -
- Executive branch: role and powers of the presidency -
 - Chief executive, cabinet departments, executive orders -
 - Chief diplomat, commander-in-chief of the armed forces -
 - Chief legislator, sign laws into effect, recommend laws, veto power -
 - Appointment power, cabinet officers, federal judges -
- Judiciary: Supreme Court as Constitutional interpreter
 - Loose construction (interpretation) vs. strict construction of U.S. Constitution
 - Concepts of due process of law, equal protection
 - Marbury v. Madison*, principle of judicial review of federal law, Chief Justice John Marshall

VIII. Geography of Canada and Mexico

- Canada
 - The ten provinces and two territories, Nunavut (self-governing American Indian homeland), Ottawa
 - St. Lawrence River, Gulf of St. Lawrence, Grand Banks, Hudson Bay, McKenzie River, Mt. Logan
 - Two official languages: English and French, separatist movement in Quebec
 - Montreal, Toronto, Vancouver, most Canadians live within 100 miles of U.S.
 - Rich mineral deposits in Canadian Shield, grain exporter
 - U.S. and Canada share longest open international boundary, affinities between neighboring U.S. and Canadian regions -
 - North American Free Trade Agreement (NAFTA) -
- Mexico
 - Mexico City: home of nearly one-quarter of population, vulnerable to earthquakes
 - Guadalajara, Monterrey
 - Sierra Madre mountains, Gulf of California, Yucatan Peninsula
 - Oil and gas fields
 - Rapid population growth rate
 - North American Free Trade Agreement (NAFTA), Maquiladoras

Visual Arts: Grade 8

SEE INTRODUCTION, "The Arts in the Curriculum."

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists.

In studying the works of art specified below, and in creating their own art, students should review, develop, and apply concepts introduced in previous grades, such as line, shape, form, space, texture, color, light, design, and symmetry.

I. Art History: Periods and Schools

Teachers: The guidelines here continue the organizational scheme established in sixth and seventh grades, which combined art history with analysis of specific illustrative works. Timelines may help students situate the artists, periods, and schools. Note that the periods and characteristics are not absolute distinctions but generally helpful categories (to which there are always exceptions) often used in discussions of art.

A. PAINTING SINCE WORLD WAR II

- Examine representative artists and works, including
 - Jackson Pollock and Abstract Expressionism: *Painting*, 1948
 - Willem de Kooning, *Woman and Bicycle*
 - Mark Rothko, *Orange and Yellow*
 - Helen Frankenthaler, *Wales*
 - Andy Warhol and Pop Art: *Campbell's Soup Can*, *Marilyn*
 - Roy Lichtenstein, *Whaam*
 - Romare Bearden, *She-Ba*
 - Jacob Lawrence, a work from his *Builder* series or *Migration of Negroes* series

B. PHOTOGRAPHY

- Examine representative artists and works, including
 - Edward Steichen, *Rodin with His Sculptures "Victor Hugo" and "The Thinker"*
 - Alfred Steiglitz, *The Steerage*
 - Dorothea Lange, *Migrant Mother, California*
 - Margaret Bourke-White, *Fort Peck Dam*
 - Ansel Adams, *Moonrise, Hernandez, New Mexico*
 - Henri Cartier-Bresson, *The Berlin Wall*

C. 20TH-CENTURY SCULPTURE

- Examine representative artists and works, including -
 - Auguste Rodin: *The Thinker*, *Monument to Balzac*
 - Constantin Brancusi, *Bird in Space*
 - Pablo Picasso, *Bull's Head*
 - Henry Moore, *Two Forms*
 - Alexander Calder, *Lobster Trap and Fish Tail*
 - Louise Nevelson, *Black Wall*
 - Claes Oldenburg, *Clothespin*
 - Maya Lin, *Vietnam Veterans Memorial*









II. Architecture Since the Industrial Revolution

- Demonstrations of metal structure: Crystal Palace, Eiffel Tower
- First skyscrapers: “Form follows function”
 - Louis Sullivan: Wainwright Building
 - Famous skyscrapers: Chrysler Building, Empire State Building
- Frank Lloyd Wright: Fallingwater, Guggenheim Museum
- The International Style
 - Walter Gropius, Bauhaus Shop Block
 - Le Corbusier: Villa Savoye, Unite d’Habitation, Notre Dame du Haut
 - Ludwig Mies van der Rohe and Philip Johnson: Seagram Building

SEE INTRODUCTION, "The Arts in the Curriculum."

I. Elements of Music

Teachers: The Music guidelines for grades 6–8 share a basic vocabulary of the elements of music that can inform the discussion, appreciation, and study of selected musical works. Following these guidelines are recommendations in each grade for a core of musical content, broadly organized as a history of music from early to modern times, with attention to specific periods, composers, and genres. While these guidelines focus on musical vocabulary, appreciation, and history, musical performance should be encouraged and emphasized as local resources allow.

- Review as necessary from earlier grades:
 - The orchestra and families of instruments (strings, wind, brass, percussion); keyboard instruments
 - Vocal ranges: soprano, mezzo-soprano, alto; tenor, baritone, bass
- Recognize frequently used Italian terms:
 - grave* (very very slow)
 - largo* (very slow)
 - adagio* (slow)
 - andante* (moderate; "walking")
 - moderato* (medium)
 - allegro* (fast)
 - presto* (very fast)
 - prestissimo* (as fast as you can go)
 - ritardando* and *accelerando* (gradually slowing down and getting faster)
 - crescendo* and *decrescendo* (gradually increasing and decreasing volume)
 - legato* (smoothly flowing progression of notes), *staccato* (crisp, distinct notes)
- Recognize introduction, interlude, and coda in musical selections.
- Recognize theme and variations.
- Identify chords [such as I (tonic), IV (subdominant), V (dominant); V7]; major and minor chords; chord changes; intervals (third, fourth, fifth).
- Understand what an octave is.
- Understand the following notation and terms:
 - names of lines and spaces in the treble clef; middle C
 -  treble clef  bass clef  staff, bar line, double bar line, measure, repeat signs
 -  whole note  half note  quarter note  eighth note
 - whole rest, half rest, quarter rest, eighth rest
 -  grouped sixteenth notes
 - tied notes and dotted notes
 - # sharps ♭ flats ♮ naturals
 - Da capo* [*Da Capo*] *al fine*
 - meter signature: $\frac{4}{4}$ or common time $\frac{2}{4}$ $\frac{3}{4}$ $\frac{6}{8}$
 - soft *pp* *p* *mp* loud *mf* *f* *ff*

II. Non-Western Music

- Become familiar with scales, instruments, and works from various lands, for example: 12-tone scale, sitar from India, Caribbean steel drums, Japanese koto.

III. Classical Music: Nationalists and Moderns

Teachers: While these guidelines focus on musical vocabulary, appreciation, and history, musical performance should be encouraged and emphasized as resources allow. The focus here combines music history with appreciation of illustrative works, and continues from grades 6 and 7 the idea of classifying Western music by periods, with examples of specific composers and works, as well as some associated musical terms. Timelines may help students situate the periods. The periods and their characteristics are not absolute distinctions but generally helpful categories often used in discussions of music.

Note: In seventh grade, students were introduced to works by Dvořák, Grieg, and Tchaikovsky.

A. MUSIC AND NATIONAL IDENTITY

- Composers and works:
Jean Sibelius, *Finlandia*
Bela Bartók, folk-influenced piano music such as *Allegro barbaro*, selections from *Mikrokosmos* or *For Children*
Joaquin Rodrigo, *Concierto de Aranjuez*
Aaron Copland, *Appalachian Spring (Suite)*

B. MODERN MUSIC

- Composers and works:
Claude Debussy, *La Mer*, first movement, “De l’aube à midi sur la mer”
Igor Stravinsky, *The Rite of Spring*, first performed in Paris, 1913

IV. Vocal Music

A. OPERA

- Terms: overture, solo, duet, trio, quartet, chorus, aria, recitative
- Composers and works:
Gioacchino Rossini, from *The Barber of Seville*: Overture and “Largo al factotum”
Giuseppe Verdi, from *Rigoletto*: aria, “Questa o quella”; duet, “Figlia! . . . Mio padre!”; aria, “La donna è mobile”; quartet, “Bella figlia dell’amore”

B. AMERICAN MUSICAL THEATER

- Composers and popular songs:
Irving Berlin, “There’s No Business Like Show Business,” “Blue Skies”
George M. Cohan, “Give My Regards to Broadway,” “Yankee Doodle Dandy”
Cole Porter, “Don’t Fence Me In,” “You’re the Top”
- Broadway musicals: selections including
Jerome Kern, *Showboat*: “Ole Man River”
Rodgers and Hammerstein, *Oklahoma!*: “Oh What a Beautiful Mornin’,” “Oklahoma”
Leonard Bernstein and Stephen Sondheim, *West Side Story*: “Maria,” “I Feel Pretty”

Teachers: These guidelines are representative of the mathematics typically learned at this grade level in countries that have strong math traditions and whose students score well in international comparisons. Concepts that were in the Grade 7 specifications are generally not repeated here but they are assumed.

In learning the new concepts and procedures, students should use previously acquired mathematics to ensure that the procedures become automatic and habitual. Students should continue to master the use of measuring and drawing instruments, develop their mental arithmetic and their approximating abilities, become more familiar with deductive reasoning, and use calculators and computers in a thoughtful way. The work in eighth grade requires some minimal use of a scientific calculator.

Appropriate preparation for algebra is critical for success in that subject and some students, particularly students who have not been in a Core Knowledge school, may simply not be ready for the content described herein. Most schools will need to spend a limited time reviewing prerequisite concepts, but those students for whom that is insufficient may well require a year in a program that is closer to the Grade 7 specifications.

I. Algebra

A. PROPERTIES OF THE REAL NUMBERS

- Be able to raise a positive number to a fractional power and simplify appropriately, including rationalizing the denominator of a simple radical expression.
- Know and use of the rules of exponents extended to fractional exponents.
- Use the definition of absolute value to solve equations such as $|2x - 3| + 3x = 4x - 2$ and understand why “extraneous solutions” are not solutions at all.

B. RELATIONS, FUNCTIONS, AND GRAPHS (TWO VARIABLES)

- Be able to plot a set of ordered pairs and surmise a reasonable graph of which the points are a part.
- Be able to make a reasonable table of ordered pairs from a given function rule, plot the points, and surmise its graph.
- Know that the points of intersections of two graphs are simultaneous solutions of the relations that define them and indicate approximate numerical solutions.

C. LINEAR EQUATIONS AND FUNCTIONS (TWO VARIABLES)

- Graph linear equations by finding the x- and y-intercepts; for example, know that $2x + 3y = 4$ is linear and graph it using its intercepts.
- Be able to convert between slope-intercept form ($y = mx + b$) and standard form ($ax + by = c$).
- Write an equation for a line given two points or one point and its slope.
- Know lines are parallel or perpendicular from their slopes.
- Find the equation of a line perpendicular to a given line that passes through a given point.
- Understand and be able to graph the solution set of a linear inequality.
- Solve a system of two linear equations in two variables algebraically and interpret the answer graphically.
- Solve a system of two linear inequalities in two variables and sketch the solution set.
- Solve word problems (including mixture, digit, and age problems) that involve linear equations.

D. ARITHMETIC OF RATIONAL EXPRESSION

- Factor second- and higher-degree polynomials when standard techniques apply, such as factoring the GCF out of all terms of a polynomial, the difference of two squares, and perfect squares trinomials.
- Add, subtract, multiply, and divide rational expressions and express in simplest form.

E. QUADRATIC EQUATIONS AND FUNCTIONS

- Solve quadratic equations in one variable by factoring or by completing the square.
- Complete the square to write a quadratic expression as the difference of two squares.
- Graph quadratic functions by completing the square to find the vertex and know that their zeros (roots) are the x-intercepts.
- Know the quadratic formula and be familiar with its proof by completing the square.
- Know how to clear fractions to solve equations that lead to linear or quadratic equations.
- Know how to use squaring to solve problems that lead to linear or quadratic equations.
- Solve word problems, including physical problems such as the motion of an object under the force of gravity, and combined rate (work) problems.

II. Geometry**A. ANALYTIC GEOMETRY**

- Reinforce the knowledge of algebra with geometry and vice versa.
- Know that the midpoint of a line segment of any slope, projected perpendicularly onto the horizontal x-axis or vertical y-axis, will be the midpoint of its projection.
- Know the similar triangles connection (AA Similarity) with slope and that this is the tangent of the angle the line makes with the x-axis.

B. INTRODUCTION TO TRIGONOMETRY

- Know that in a right triangle the cosine of an angle is the ratio of the adjacent side to the hypotenuse and the sine is the ratio of the opposite side to the hypotenuse.
- Know the values of the sine, cosine, and tangent of 0, 30, 45, 60, and 90 degrees and use a scientific calculator to determine the approximate value of any acute angle.
- Use a scientific calculator to determine the approximate value of an acute angle of a given sine, cosine, or tangent.

C. TRIANGLES AND PROOFS

- Prove that the bisector of an angle is the set of all points equidistant from both sides.
- Prove that any triangle inscribed in a circle with one side as the diameter is a right triangle.
- Prove the Pythagorean Theorem.
- Know that a line tangent to a circle is perpendicular to the radius at the point of tangency.
- Taking geometry as a model, understand the concept of a mathematical proof, as distinct from an opinion, an approximation, or a conjecture based on specific cases.
- In geometry and elsewhere, understand that a single-counter example suffices to disprove a general assertion.

Teachers: Effective instruction in science requires not only direct experience and observation but also book learning, which helps bring coherence and order to a student's scientific knowledge. Only when topics are presented systematically and clearly can students make steady and secure progress in their scientific learning. The Science sequence for the middle school grades aims for more intensive and selective study of topics, a number of which were introduced in earlier grades. The *Sequence* continues the practice of studying topics from each of the major realms of science (physical, life, and earth science). Students are expected to do experiments and write reports on their findings.

I. Physics

A. MOTION

- Velocity and speed
The velocity of an object is the rate of change of its position in a particular direction.
Speed is the magnitude of velocity expressed in distance covered per unit of time.
Changes in velocity can involve changes in speed or direction or both.
- Average speed = total distance traveled divided by the total time elapsed -
Formula: $\text{Speed} = \text{Distance} / \text{Time}$ ($S = D/T$) -
Familiar units for measuring speed: miles or kilometers per hour -

B. FORCES

- The concept of force: force as a push or pull on an object
Examples of familiar forces (such as gravity, magnetic force)
A force has both direction and magnitude.
Measuring force: expressed in units of mass, pounds in English system, newtons in metric system
- Unbalanced forces cause changes in velocity.
If an object is subject to two or more forces at once, the effect is the net effect of all forces.
The motion of an object does not change if all the forces on it are in balance, having net effect of zero.
The motion of an object changes in speed or direction if the forces on it are unbalanced, having net effect other than zero.
To achieve a given change in the motion of an object, the greater the mass of the object, the greater the force required.

C. DENSITY AND BUOYANCY

- When immersed in a fluid (i.e. liquid or gas), all objects experience a buoyant force.
The buoyant force on an object is an upward (counter-gravity) force equal to the weight of the fluid displaced by the object.
Density = mass per unit volume
Relation between mass and weight (equal masses at same location have equal weights)
- How to calculate density of regular and irregular solids from measurements of mass and volume -
The experiment of Archimedes -
- How to predict whether an object will float or sink

D. WORK

- In physics, work is a relation between force and distance: work is done when force is exerted over a distance.
Equation: Work equals Force x Distance ($W = F \times D$)
Common units for measuring work: foot-pounds (in English system), joules (in metric system; 1 joule = 1 newton of force x 1 meter of distance)

E. ENERGY

- In physics, energy is defined as the ability to do work.
- Energy as distinguished from work -
To have energy, a thing does not have to move. -
Work is the transfer of energy. -
- Two main types of energy: kinetic and potential
Some types of potential energy: gravitational, chemical, elastic, electromagnetic
Some types of kinetic energy: moving objects, heat, sound and other waves
- Energy is conserved in a system.

F. POWER

- In physics, power is a relation between work and time: a measure of work done (or energy expended) and the time it takes to do it.
Equation: Power equals Work divided by Time ($P = W/T$), or Power = Energy/Time
Common units of measuring power: foot-pounds per second, horsepower (in English system); watts, kilowatts (in metric system)

II. Electricity and Magnetism**A. ELECTRICITY**

- Basic terms and concepts (review from grade 4):
Electricity is the charge of electrons in a conductor.
Opposite charges attract, like charges repel.
Conductors and insulators
Open and closed circuits
Short circuit: sudden surge of amperage due to the reduction of resistance in a circuit;
protection from short circuits is achieved by fuses and circuit breakers
Electrical safety
- Electricity as the charge of electrons -
Electrons carry negative charge; protons carry positive charge -
Conductors: materials like metals that easily give up electrons -
Insulators: materials like glass that do not easily give up electrons -
- Static electricity
A static charge (excess or deficiency) creates an electric field.
Electric energy can be stored in capacitors (typically two metal plates, one charged positive and one charged negative, separated by an insulating barrier). Capacitor discharges can release fatal levels of energy.
Grounding drains an excess or makes up a deficiency of electrons, because the earth is a huge reservoir of electrons. Your body is a ground when you get a shock of static electricity.
Lightning is a grounding of static electricity from clouds.
- Flowing electricity
Electric potential is measured in volts.
Electric flow or current is measured in amperes: 1 ampere = flow of 1 coulomb of charge per second (1 coulomb = the charge of 6.25 billion billion electrons).
The total power of an electric flow over time is measured in watts. Watts = amps x volts;
amps = watts/volts; volts = watts/amps.
The unit of electrical resistance is the ohm.



B. MAGNETISM AND ELECTRICITY

- Earth's magnetism
Earth's magnetism is believed to be caused by movements of charged atoms in the molten interior of the planet.
Navigation by magnetic compass is made possible because the earth is a magnet with north and south magnetic poles.
- Connection between electricity and magnetism
Example: move a magnet back and forth in front of wire connected to a meter, and electricity flows in the wire. The reverse: electric current flowing through a wire exerts magnetic attraction.
Spinning electrons in an atom create a magnetic field around the atom. -
Unlike magnetic poles attract, like magnetic poles repel. -
Practical applications of the connection between electricity and magnetism, for example: -
An electric generator creates alternating current by turning a magnet and a coil of wire in relation to each other; an electric motor works on the reverse principle.
A step-up transformer sends alternating current through a smaller coil of wire with just a few turns next to a larger coil with many turns. This induces a higher voltage in the larger coil. A step-down transformer does the reverse, sending current through the larger coil and creating a lower voltage in the smaller one.

III. Electromagnetic Radiation and Light

- Waves and electromagnetic radiation
Most waves, such as sound and water waves, transfer energy through matter, but light belongs to a special kind of radiation that can transfer energy through empty space.
- The electromagnetic spectrum
From long waves, to radio waves, to light waves, to x-rays, to gamma rays
Called "electromagnetic" because the radiation is created by an oscillating electric field which creates an oscillating magnetic field at right angles to it, which in turn creates an oscillating electric field at right angles, and so on, with both fields perpendicular to each other and the direction the wave is moving.
The light spectrum: from infrared (longest) to red, orange, yellow, green, blue, violet (shortest)
Speed in a vacuum of all electromagnetic waves including light: 300,000 km per second, or 186,000 miles per second; a universal constant, called c
- Refraction and reflection
Refraction: the slowing down of light in glass causes it to bend, which enables lenses to work for television, photography, and astronomy
How Isaac Newton used the refraction of a prism to discover that white light was made up of rays of different energies (or colors) -
Reflection: concave and convex reflectors; focal point -

IV. Sound Waves

- General properties of waves
Waves transfer energy by oscillation without transferring matter; matter disturbed by a wave returns to its original place.
Wave properties: wavelength, frequency, speed, crest, trough, amplitude
Two kinds of waves: transverse (for example, light) and longitudinal (for example, sound)
Common features of both kinds of waves: -
Speed and frequency of wave determine wavelength. -
Wave interference occurs in both light and sound. -
Doppler effect occurs in both light and sound. -

- Sound waves: longitudinal, compression waves, made by vibrating matter, for example, strings, wood, air
While light and radio waves can travel through a vacuum, sound waves cannot. Sound waves need a medium through which to travel.
- Speed
Sound goes faster through denser mediums, that is, faster through solids and liquids than through air (gases).
At room temperature, sound travels through air at about 340 meters per second (1,130 feet per second). -
Speed of sound = Mach number -
Supersonic booms; breaking the sound barrier -
- Frequency
Frequency of sound waves measured in “cycles per second” or Hertz (Hz)
Audible frequencies roughly between 20 and 20,000 Hz
The higher the frequency, the higher the subjective “pitch”
- Amplitude
Amplitude or loudness is measured in decibels (dB).
Very loud sounds can impair hearing or cause deafness.
Resonance, for example, the sound board of a piano, or plates of a violin

V. Chemistry of Food and Respiration

- Energy for most life on earth comes from the sun, typically from sun, to plants, to animals, back to plants.
- Living cells get most of their energy through chemical reactions.
All living cells make and use carbohydrates (carbon and water), the simplest of these being sugars.
All living cells make and use proteins, often very complex compounds containing carbon, hydrogen, oxygen, and many other elements.
Making these compounds involves chemical reactions which need water, and take place in and between cells, across cell walls. The reactions also need catalysts called “enzymes.”
Many cells also make fats, which store energy and food.
- Energy in plants: photosynthesis
Plants do not need to eat other living things for energy.
Main nutrients of plants: the chemical elements nitrogen, phosphorus, potassium, calcium, carbon, oxygen, hydrogen (some from soil or the sea, others from the air)
Photosynthesis, using chlorophyll, converts these elements into more plant cells and stored food using energy from sunlight.
Leafy plants mainly get their oxygen dissolved in water from their roots, and their carbon mainly from the gas CO_2 .
Plant photosynthesis uses up CO_2 and releases oxygen.
- Energy in animals: respiration
Animal chemical reactions do the opposite of plants—they use up oxygen and release CO_2 .
In animals the chief process is not photosynthesis but respiration, that is, the creation of new compounds through oxidation.
Animals cannot make carbohydrates, proteins, and fats from elements. They must eat these organic compounds from plants or other animals, and create them through respiration.
Respiration uses oxygen and releases CO_2 , creating an interdependence and balance between plant and animal life.



- Human nutrition and respiration
 - Humans are omnivores and can eat both plant and animal food.
 - Human respiration, through breathing, gets oxygen to the cells through the lungs and the blood. -
 - The importance of hemoglobin in the blood -
- Human health
 - While many other animals can make their own vitamins, humans must get them from outside.
 - A balanced diet: the food pyramid or “MyPlate” for humans (review); identification of the food groups in terms of fats, carbohydrates, proteins, vitamins, and trace elements

VI. Science Biographies

Albert Einstein (physicist whose theories of relativity allowed great advancements in the study of space, matter, energy, time, and gravity)

Dorothy Hodgkin (chemist who determined the structure of vitamin B12)

James Maxwell (scientist who created mathematical equations that expressed the basic laws of light, electricity, and magnetism)

Charles Steinmetz (scientist who made key advances in electric power)

appendices

Overview of Topics

Appendices

Appendix A

Why Listening and Learning are Critical
to Reading Comprehension

Appendix B

Using Trade Books to Achieve College and Career
Readiness: The Principles of Democracy

Appendix C

Domains and Core Content Objectives for the
Core Knowledge Language Arts Program, K–2

Appendix D

Core Knowledge Grade-by-Grade Resource
Recommendations

Appendix A:

Why Listening and Learning are Critical to Reading Comprehension

Appendix A: Why Listening and Learning are Critical to Reading Comprehension

Those who follow education know all too well that concern about poor student achievement in literacy has reached levels that border on desperation. By every standard measure, it is clear that large numbers of students are leaving American schools ill-prepared to pursue higher education or careers due to poor literacy skills. On international comparisons of reading achievement, the United States ranks below nearly all other countries, surpassed by the likes of Finland, Korea, Japan, and even Hungary and Poland. Longitudinal test results from the National Assessment of Education Progress (NAEP) show little or no growth over a period of decades.

Some progress has been made in recent years in the early elementary grades, thanks to both the Reading First initiative and the No Child Left Behind (NCLB) legislation which have underscored the importance of explicitly and systematically teaching decoding skills. Since the inception of these programs, test scores in the very early grades (K–2) have risen. This improvement reflects the benefits of explicit instruction in phonemic awareness, systematic phonics, and the development of fluency.

Unfortunately, however, these initial improvements have proven unsustainable. As these very same students moved into the upper elementary grades, their test scores have dropped or flatlined. The conclusion is inescapable: the explicit teaching of decoding skills is necessary, but not sufficient to achieve the goal of full literacy. While systematically teaching decoding leads to improved performance on early reading evaluations, which focus on decoding skills, American educators have yet to find an analogous remedy that leads to improved test scores in the latter grades, when the focus shifts to assessing whether students understand what they read. The approach currently favored by most language arts programs, hours of instructional time to teaching and practicing an ever expanding collection of reading comprehension strategies, has proven ineffective. Current research suggests that teaching reading strategies has value in helping students recognize the purpose for reading and may lead to a slight boost in reading comprehension scores, but not the sustained improvement that would be indicative of true literacy. Something is still missing.

What’s missing is background knowledge. “Most of us think about reading in a way that is fundamentally incorrect,” observes University of Virginia cognitive scientist Daniel T. Willingham. “We think of it as transferable, meaning that once you acquire the ability to read, you can read anything. But being able to decode letter strings fluently is only half of reading. In order to understand what you’re reading, you need to know something about the subject matter. And that doesn’t just mean that you need to know the vocabulary—you need to have the right knowledge of the world,” he says.

The successful experience of schools using Core Knowledge during the past 20 years demonstrates the importance of background knowledge to reading comprehension. Time and again, schools implementing the content-specific Core Knowledge curriculum have noted that even though state and standardized tests are not tied to the *Core Knowledge Sequence*, student performance on such tests improves at statistically significant levels when students are exposed to Core Knowledge over several years. Instead of scores dropping or flatlining at the upper grade levels, Core Knowledge students’ test scores actually rise! “General reading comprehension ability is much more than comprehension strategies,” wrote Core Knowledge founder E.D. Hirsch, Jr. in his 2006 book *The Knowledge Deficit*; “it requires a definite range of general knowledge.”

In order to understand what is read, it is absolutely necessary to have knowledge of relevant things that are not explicitly stated. Reading is a two-lock box, and opening that box requires not only adequate decoding skills but also language, vocabulary and background knowledge that provide a foundation and underlying context for students to understand what they are reading.

There is “truly a mountain of data that students must have content knowledge to read effectively,” says Willingham. Unfortunately, existing language arts programs have not been designed to build this foundation of language, vocabulary and background knowledge. This is why the Core Knowledge Foundation is creating the *Core Knowledge Language Arts* program.

LANGUAGE—LISTENING, SPEAKING, READING, AND WRITING

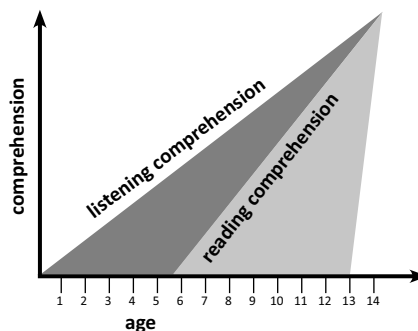
Traditional language arts instruction has typically paid little attention to listening and speaking. This failure to focus on the development of oral language in language arts instruction is a serious oversight. The ability to read and write written language, is highly correlated with students’ oral language proficiency, and the ability to understand a text read aloud is a prerequisite for making sense of the same text in printed form. It is essential that children build listening and speaking competency while also developing reading and writing skills.

Linguists distinguish between receptive and expressive language. Receptive language is language that we take in, process and understand. Expressive language is language we generate and produce. Oral language is spoken language or speech. Written language is print. Oral language is primary. Written language builds upon it.

	Receptive Language	Expressive Language
Oral Language	Listening	Speaking
Written Language	Reading (<i>two keys: decoding + comprehension</i>)	Writing (<i>handwriting, spelling, written composition</i>)

Researchers who study the development of language in young children point out that oral language development precedes and is the foundation for written language development. Children’s oral language competence is strongly predictive of their facility in learning to read and write. A child’s listening and speaking vocabulary, and even mastery of syntax, set boundaries as to what they can read and understand no matter how well they can decode.

It is important to note that for young children in preschool and the early grades, *receptive and expressive abilities do not develop simultaneously or at the same pace; receptive language generally precedes expressive language*. Science confirms what common sense suggests: children need to be able to understand words before they can produce and use them. The groundbreaking work of Hart and Risley (1995), who studied young children in the context of their early family life, found the number of words they heard before they arrived in kindergarten predicted how many words they understood and how fast they could learn new words in kindergarten. Even more significantly, five years later, in third grade, early language competence still predicted language and reading comprehension. The preschoolers who had heard more words, and subsequently learned more words orally, became better readers.



Source: T. G. Sticht and J. James, “Listening and reading,” in P. Pearson, ed., *Handbook of Research on Reading*. New York: Longmans, 1984. (1984)

This finding offers a profoundly important lesson for educators. *Early language disadvantage persists and manifests itself as illiteracy when educational practices fail to recognize the importance of oral language.* A meta-analysis of research by Thomas Sticht (1984) reinforces the importance and primacy of oral language, suggesting that it endures well past the time during which most children have started reading independently. Sticht's analysis strongly suggests that children's listening comprehension outpaces reading comprehension until the middle school years (grades 6–8).

The takeaway message is clear and obvious: we must devote at least as much time during the language arts block to reading *aloud* to young children as we currently devote to providing children with the skills they will need to decode and encode language. This is one of the fundamental premises of the Listening and Learning Strand of the *Core Knowledge Language Arts* program.

BUILDING LISTENING COMPREHENSION AND CONTENT KNOWLEDGE BY READING ALOUD

Written text makes use of richer vocabulary and more complex syntax than conversational language. It is important that young children be exposed not only to the language of everyday conversation but also to the richer and more formal language of books. This is best done through frequent reading aloud. Children's ability to understand what they hear far outpaces their ability to independently read and understand written text. By listening to stories or nonfiction selections read aloud, children can experience the complexities of written language without expending cognitive energy on decoding. Helping young children develop the ability to listen to and understand written texts read aloud must be an integral part of any initiative designed to build literacy.

CHOOSING READ-ALOUDS

Not just any read-aloud(s), however, will do. First, careful consideration should be given to the selection of text read aloud to ensure that the vocabulary and syntax presented is rich and complex.

Furthermore, to make efficient use of instructional time, read-alouds must also be selected that build a broad knowledge base, while simultaneously building listening comprehension and language skills. To do this, the selection of *read-alouds within a given grade level and across grade levels must be guided by a coherent, sequenced approach to building knowledge.* This can be achieved by selecting fiction and nonfiction read-alouds from grade level topics identified in the *Core Knowledge Sequence*. The topics for read-alouds in the Listening and Learning Strand of the *Core Knowledge Language Arts* program have been chosen on this basis.

By reading a story or nonfiction selection aloud, we allow children to experience written language without the burden of decoding, granting them access to content they may not be able to read and understand by themselves. They are then free to focus their mental energy on the words and ideas presented in the text, gaining the language and background knowledge that will be needed to tackle rich, written content on their own.

DOMAINS AND STAYING ON A TOPIC

Building knowledge systematically in language arts is like giving children various pieces of a puzzle in each grade that, over time, will form the big picture. As noted above, read-alouds—within and across grade levels—need to be selected around topics or domains that systematically build knowledge. A domain is an area of knowledge, such as the human body, plants, astronomy, Native Americans, civil rights, and so on. It is strongly recommended that daily read-alouds focus on a single domain over a sustained period of time—about two weeks—rather than intermingling randomly selected read-alouds on a variety of topics. The *Tell It Again! Read-Aloud Anthologies* for the Listening and Learning Strand are organized by domain.

Staying on a topic or domain increases the chances that students will receive multiple exposures to key vocabulary words. For example, in the kindergarten Plants domain, students get multiple

exposures to key words from this domain, such as *nutrients*, *photosynthesis*, *crop*, and *harvest*. Hearing these kinds of words used in meaningful contexts over the course of a domain efficiently and exponentially increases the rate at which children acquire new vocabulary.

Acquisition of both language and knowledge will also be enhanced if, following each read-aloud, children participate in rich, structured conversations with an adult in response to the written text that has been read aloud. In this way, they can begin to orally practice comparing, analyzing, and synthesizing ideas in written text in much the same way as they will be expected to do as independent readers in the later grades.

ENSURING COHERENCE

The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics.

The *Core Knowledge Sequence* is designed to provide schools with a coherent, cumulative and content-specific curriculum. In Core Knowledge schools, teaching and learning are more effective as teachers help students build upon prior knowledge and make more efficient progress from one year to the next. All students enjoy more equal educational opportunities as they are motivated by consistently challenging content. And all children are prepared to become members of the wider national community, respectful of diversity while strengthened by the shared knowledge that helps unite us on common ground.

To learn more, visit the Core Knowledge Reading Room on our website at www.coreknowledge.org.

You can also find the following articles and video online:

Building Knowledge

The Case for Bringing Content into the Language Arts Block and for a Knowledge-Rich Curriculum Core for All Children

By E.D. Hirsch, Jr.

American Educator, Spring 2006

http://archive.aft.org/pubs-reports/american_educator/issues/spring06/hirsch.htm

How Knowledge Helps

It Speeds and Strengthens Reading Comprehension, Learning—and Thinking

By Daniel T. Willingham

American Educator, Spring 2006

http://archive.aft.org/pubs-reports/american_educator/issues/spring06/willingham.htm

Teaching Content Is Teaching Reading

<http://www.youtube.com/watch?v=Rp-ijdxqEc>

The Importance of Oral Language

The Early Catastrophe: The 30 Million Word Gap by Age 3

By Betty Hart and Todd Risley

American Educator, Spring 2003

http://archive.aft.org/pubs-reports/american_educator/spring2003/catastrophe.html

Appendix B:

Using Trade Books
to Achieve
College and
Career Readiness:

The Principles of
Democracy

Appendix B: Using Trade Books to Achieve College and Career Readiness: The Principles of Democracy

To be able to read and understand the Declaration of Independence, the Preamble to the Constitution, or Dr. Martin Luther King Jr.'s "I Have a Dream" speech, all texts identified in the newly released Common Core State Standards, literate adults must have a firm grasp of both the language and historical context of these texts. Building this foundation starts in the early elementary grades.

While all American history topics are relevant in some way to the formation of the United States and to the understanding of how the principles of American democracy came about, the listing on the next page represents a grade-appropriate mini-sequence of American history topics that directly relate to the ideas and freedoms embodied in the Declaration of Independence and the Constitution. Age-appropriate trade book titles that could be used as read-alouds are also identified for each domain to illustrate how carefully selected read-alouds can be used to coherently build domain knowledge within and across grade levels.

Study of American history and geography can begin in grades K–2 with a brief overview of major events and figures, from the earliest days to recent times. (The term "American" here generally refers to the lands that became the United States.) A more in-depth, chronological study of American history can then begin again in grade 3 and continue onward.

Exemplar Texts on a Topic
Across Grades

K

1

2–3

4–5

Principles of Democracy

To be able to read and understand the Declaration of Independence, the Preamble to the Constitution, or King's "I Have a Dream" speech, literate adults must have a firm grasp of both the language and historical context of these texts. Building this foundation starts in the early elementary grades. All American history topics are relevant in some way to the formation of the United States and to the understanding of how the principles of American democracy came about. This listing represents a grade-appropriate mini-sequence of American history topics that directly relate to the ideas and freedoms embodied in the Declaration of Independence and the Constitution.

Study of American history and geography can begin in grades K-2 with a brief overview of major events and figures, from the earliest days to recent times. (The term "American" here generally refers to the lands that became the United States.) A more in-depth, chronological study of American history can then begin again in grade 3 and continue onward.

Reference the rest of this listing for more detail about specific age-appropriate subtopics as well as additional titles.

Early Exploration and Settlement

- The Voyage of Columbus in 1492
- The Pilgrims

A Picture Book of Christopher Columbus by David A. Adler (1991)

Christopher Columbus by Mary Dodson Wade (2003)

The Pilgrims' First Thanksgiving by Anne McGovern (1973)

Pilgrims of Plymouth by Susan E. Goodman (1999)

§ *The Pilgrims' Thanksgiving from A-Z* by Laura Crawford (2005)

Presidents and American Symbols

- Introduction to famous presidents

– George Washington

– Thomas Jefferson

– Abraham Lincoln

– Theodore Roosevelt

– Current United States president

- American Symbols and Figures

My Teacher for President by Kay Winters (2004)

George Washington by Philip Abraham (2002)

A Picture Book of Thomas Jefferson by David A. Adler (1990)

Abe Lincoln's Hat by Martha Brenner (1994)

I pledge allegiance by Bill Martin Jr. and Michael Sampson (2002)

The Birth of Our Nation

- Introduction to the American Revolution (emphasizing the story of how we went from colonies to an independent nation)
- American Symbols and Figures

The 4th of July Story by Alice Dalglish (1995)

American Revolution (Research Guide) by Mary Pope Osborne (2004)

Boston Tea Party by Pamela Duncan Edwards (2001)

A Picture Book of Paul Revere by David A. Adler (1995)

Red, White, and Blue: The Story of the American Flag by John Herman (1998)

The Thirteen Colonies
Life before the Revolution

Life in a Colonial Town by Sally Senzell Isaacs (2000)

Colonial Life by Brendan January (2000)

If You Lived in Williamsburg In Colonial Days by Barbara Brenner (2000)

Immigration and Citizenship

Coming to America by Betsy Maestro (1996)

Miss Bridie Chose a Shovel by Leslie Connor (2004)

Watch the Stars Come Out by Riki Levinson (1985)

We the Kids by David Catrow (2002)

The Story of the Statue of Liberty by Betsy and Giulio Maestro (1986)

Reformers

A Picture Book of Eleanor Roosevelt by David A. Adler (1991)

A Picture Book of Martin Luther King, Jr. by David A. Adler (1989)

Teammates by Peter Golenbock (1990)

Susan B. Anthony: Fighter for Freedom and Equality by Suzanne Slade (2007)

Harvesting Hope: The Story of Cesar Chavez by Kathleen Krull (2003)

The Civil War

If You Lived at the Time of the Civil War by Kay Moore (1994)

A Picture Book of Harriet Tubman by David A. Adler (1992)

Nettie's Trip South by Ann Turner (1987)

A Picture Book of Abraham Lincoln by David A. Adler (1989)

Just a Few Words, Mr. Lincoln: The Story of the Gettysburg Address by Jean Fritz (1993)

The American Revolution

Undertake a more detailed study.

Events Leading to the American Revolution by Linda R. Wade (2001)

The Revolutionary War by Brendan January (2000)

Paul Revere's Ride by Henry Wadsworth Longfellow (1990)

The Battles of Lexington and Concord by Judith Peacock (2002)

Can't You Make Them Behave, King George? by Jean Fritz (1977)

Making a Constitutional Government

A More Perfect Union: The Story of our Constitution by Betsy and Giulio Maestro (1987)

The Constitution by Warren Colman (1987)

The United States Constitution by Karen Price Hossell (2004)

If You Were There When They Signed the Constitution by Elizabeth Levy (1987)

Shh! We're Writing the Constitution by Jean Fritz (1987)

Reformers

Dorothea Dix: Social Reformer by Barbara Wittenman (2003)

The Abolitionist Movement by Elaine Landau (2004)

If You Lived When Women Won Their Rights by Anne Kamma (2006)

Created Equal by Ann Rossi (2005)

Only Passing Through: The Story of Sojourner Truth by Anne Rockwell (2000)

The Civil War: Causes, Conflicts, Consequences
Undertake a more detailed study.

A Slave Family by Bobbie Kalman (2003)

Sisters Against Slavery: A Story about Sarah and Angelina Grimke by Stephanie Sammartino McPherson (1999)

Abe Lincoln Goes to Washington by Cheryl Harness (1997)

The Emancipation Proclamation by Ann Heinrichs (2002)

The Gettysburg Address by Abraham Lincoln (1995)

KINDERGARTEN

Domain: Early Exploration and Settlement

The Voyage of Columbus in 1492

- Queen Isabella and King Ferdinand of Spain
- The Niña, Pinta, and Santa Maria
- Columbus's mistaken identification of "Indies" and "Indians"
- The idea of what was, for Europeans, a "New World"

The Pilgrims

- The Mayflower
- Plymouth Rock
- Thanksgiving Day celebration

July 4, "Independence Day"

- The "birthday" of our nation
- Democracy (rule of the people): Americans wanted to rule themselves instead of being ruled by a faraway king.
- Some people were not free: slavery in early America

- *A Picture Book of Christopher Columbus* by David A. Adler (1991)
- *Christopher Columbus* by Mary Dodson Wade (2003)
- *Follow the Dream: The Story of Christopher Columbus* by Peter Sis (1991)
- *The Pilgrims' First Thanksgiving* by Anne McGovern (1973)
- *Pilgrims of Plymouth* by Susan E. Goodman (1999)
- *The Pilgrims' Thanksgiving from A-Z* by Laura Crawford (2005)
- *Sarah Morton's Day: A Day in the Life of a Pilgrim Girl* by Kate Waters (1989)

Domain: Presidents and American Symbols

Introduction to famous presidents (as well as a discussion at a basic level of questions such as: What is the president? How does a person become president? Who are some of our most famous presidents, and why?)

- George Washington
 - The "Father of Our Country"
 - Legend of George Washington and the cherry tree
- Thomas Jefferson, author of Declaration of Independence
- Abraham Lincoln
 - Humble origins
 - "Honest Abe"
- Theodore Roosevelt
- Current United States president

American Symbols and Figures

- Recognize and become familiar with the significance of
 - American flag
 - Statue of Liberty
 - Mount Rushmore
 - The White House

- *My Teacher for President* by Kay Winters (2004)
- *George Washington* by Philip Abraham (2002)
- *A Picture Book of Thomas Jefferson* by David A. Adler (1990)
- *Abe Lincoln's Hat* by Martha Brenner (1994)
- *I pledge allegiance* by Bill Martin Jr. and Michael Sampson (2002)
- *The White House* by Lloyd G. Douglas (2003)
- *Woodrow, the White House Mouse* by Peter W. Barnes and Cheryl Shaw Barnes (1998)
- *The Star-Spangled Banner* illustrated by Peter Spier (1973)
- *The Legend of the Teddy Bear* by Frank Murphy (2001)

GRADE 1

Domain: The Birth of Our Nation

Introduction to the American Revolution (emphasizing the story of how we went from colonies to an independent nation)

- Locate the original thirteen colonies.
- The Boston Tea Party
- Paul Revere's ride, "One if by land, two if by sea"
- Minutemen and Redcoats, the "shot heard round the world"
- Thomas Jefferson and the Declaration of Independence, "We hold these truths to be self-evident, that all men are created equal . . ."
- Fourth of July
- Benjamin Franklin: patriot, inventor, writer
- George Washington: from military commander to our first president
 - Martha Washington
 - Our national capital city named Washington
- Legend of Betsy Ross and the flag

American Symbols and Figures

- Recognize and become familiar with the significance of
 - Liberty Bell
 - American flag
 - Bald Eagle
 - Current United States president
- *The 4th of July Story* by Alice Dalgliesh (1995)
- *American Revolution* (Research Guide) by Mary Pope Osborne (2004)
- *Boston Tea Party* by Pamela Duncan Edwards (2001)
- *A Picture Book of Paul Revere* by David A. Adler (1995)
- *Red, White, and Blue: The Story of the American Flag* by John Herman (1998)
- *A Picture Book of George Washington* by David A. Adler (1989)
- *George Washington* by Ingri and Edgar Parin D'Aulaire (1963)
- *Now & Ben: The Modern Inventions of Benjamin Franklin* by Gene Barretta (2006)
- *A Picture Book of Benjamin Franklin* by David A. Adler (1990)
- *Betsy Ross* by Alexandra Wallner (1994)
- *Yankee Doodle* by Gary Chalk (1993)
- *The Bald Eagle* by Tristan Boyer Binns (2001)
- *The Bald Eagle* by Norman Pearl (2007)
- *Saving the Liberty Bell* by Megan McDonald (2005)
- *The Liberty Bell* by Mary Firestone (2007)

GRADE 2

Domain: The Civil War

Introduction to the Civil War

- Controversy over slavery
- Harriet Tubman, the "underground railroad"
- Northern v. Southern states: Yankees and Rebels
- Ulysses S. Grant and Robert E. Lee
- Clara Barton, "Angel of the Battlefield," founder of American Red Cross
- President Abraham Lincoln: keeping the Union together
- Emancipation Proclamation and the end of slavery

American Symbols and Figures

- Recognize and become familiar with the significance of
 - U. S. flag; current and earlier versions
 - Lincoln Memorial
- *If You Lived at the Time of the Civil War* by Kay Moore (1994)
- *A Picture Book of Harriet Tubman* by David A. Adler (1992)
- *Nettie's Trip South* by Ann Turner (1987)
- *A Picture Book of Abraham Lincoln* by David A. Adler (1989)
- *Just a Few Words, Mr. Lincoln: The Story of the Gettysburg Address* by Jean Fritz (1993)
- *If you Lived When There Was Slavery in America* by Anne Kamma (2004)
- *Civil War on Sunday* by Mary Pope Osborne (2000)
- *Abe Lincoln: The boy who loved books* by Kay Winters (2003)
- *Mr. Lincoln's Whiskers* by Karen B. Winnick (1996)
- *The Lincoln Memorial* by Kathleen W. Deady (2002)
- *Escape North! The Story of Harriet Tubman* by Monica Kulling (2000)
- *If You Traveled on the Underground Railroad* by Ellen Levine (1988)
- *Escape! A Story of the Underground Railroad* by Sharon Shavers Gayle (1999)
- *Harriet and the Promised Land* by Jacob Lawrence (1997)
- *Aunt Harriet's Underground Railroad in the Sky* by Faith Ringgold (1992)
- *Follow the Drinking Gourd* by Jeanette Winter (1988)
- *A Picture Book of Robert E. Lee* by David A. Adler (1994)
- *Clara Barton* by Wil Mara (2002)

Domain: Immigration and Citizenship

Introduction to Immigration and Citizenship

Using narrative, biography, and other accessible means to introduce children to the idea that many people have come to America (and continue to come here) from all around the world, for many reasons: to find freedom, to seek a better life, to leave behind bad conditions in their native lands, etc. Discuss: What is an immigrant? Why do people leave their home countries to make a new home in America? What is it like to be a newcomer in America? What hardships have immigrants faced? What opportunities have they found?

- America perceived as a “land of opportunity”
- The meaning of “e pluribus unum” (a national motto you can see on the back of coins)
- Ellis Island and the significance of the Statue of Liberty
- Millions of newcomers to America
 - Large populations of immigrants settle in major cities (such as New York, Chicago, Philadelphia, Detroit, Cleveland, Boston, San Francisco)
- The idea of citizenship
 - What it means to be a citizen of a nation
 - American citizens have certain rights and responsibilities (for example, voting, eligible to hold public office, paying taxes)
 - Becoming an American citizen (by birth, naturalization)

Introduction to American Government: The Constitution

Through analogies to familiar settings—the family, the school, the community—discuss some basic questions regarding American government, such as: What is government? What are some basic functions of American government? (Making and enforcing laws; settling disputes; protecting rights and liberties, etc.) Only basic questions need to be addressed at this grade level. Specific issues and institutions of American government, including, for example, the separation of powers, and the relation between state and federal government should be discussed in later grades.

- American government is based on the Constitution, the highest law of our land.
- James Madison, the “Father of the Constitution”
- Government by the consent of the governed: “We the People”

American Symbols and Figures

- Recognize and become familiar with the significance of
 - U. S. flag; current and earlier versions
 - Statue of Liberty
- *Coming to America* by Betsy Maestro (1996)
- *Miss Bridie Chose a Shovel* by Leslie Connor (2004)
- *Watch the Stars Come Out* by Riki Levinson (1985)
- *We the Kids* by David Catrow (2002)
- *The Story of the Statue of Liberty* by Betsy and Giulio Maestro (1986)
- *A Very Important Day* by Maggie Rugg Herold (1995)
- *A Picnic in October* by Eve Bunting (2004)
- *One Green Apple* by Eve Bunting (2006)
- *The Keeping Quilt* by Patricia Polacco (1998)
- *Molly's Pilgrim* by Barbara Cohen (1983)

Domain: Reformers

Through narrative, biography, and other accessible means, introduce students to the idea that while America is a country founded upon “the proposition that all men are created equal, equality has not always been granted to all Americans. Many people, however, have dedicated themselves to the struggle to extend equal rights to all Americans. Specific figures and issues to study can include:

- Susan B. Anthony and the right to vote
 - Eleanor Roosevelt and civil rights and human rights
 - Mary McLeod Bethune and educational opportunity
 - Jackie Robinson and the integration of major league baseball
 - Rosa Parks and the bus boycott in Montgomery, Alabama
 - Martin Luther King, Jr. and the dream of equal rights for all
 - Cesar Chavez and the rights of migrant workers
-
- *A Picture Book of Eleanor Roosevelt* by David A. Adler (1991)
 - *A Picture Book of Martin Luther King, Jr.* by David A. Adler (1989)
 - *Teammates* by Peter Golenbock (1990)
 - *Susan B. Anthony: Fighter for Freedom and Equality* by Suzanne Slade (2007)
 - *Harvesting Hope: The Story of Cesar Chavez* by Kathleen Krull (2003)
 - *If a Bus Could Talk: The Story of Rosa Parks* by Faith Ringold (1999)
 - *I Am Rosa Parks* by Rosa Parks with Jim Haskins (1997)
 - *Eleanor* by Barbara Cooney (1996)
 - *Mary McLeod Bethune: A Great Teacher* by Patricia and Fredrick McKissack (2001)
 - *Martin Luther King, Jr. and His Birthday* by Jacqueline Woodson (1990)
 - *Martin's Big Words: The Life of Martin Luther King, Jr.* by Doreen Rappaport (2001)
 - *March On! The Day My Brother Martin Changed the World* by Christine King Farris (2008)
 - *Learning About Justice from the Life of César Chávez* by Jeanne Strazzabosco (1996)

GRADE 3

Domain: The Thirteen Colonies: Life before the Revolution

Focus on the definition of “colony” and why countries establish colonies. Help children see that the thirteen English colonies were not alike. Different groups of people came to America with different motivations (hoping to get rich, looking for religious freedom, etc.), and the thirteen colonies developed in different ways.

Geography

- The thirteen colonies by region: New England, Middle Atlantic, Southern
- Differences in climate from north to south: corresponding differences in agriculture (subsistence farming in New England, gradual development of large plantations in the South)
- Important cities in the development of trade and government: Philadelphia, Boston, New York, Charleston

Southern Colonies

- Southern colonies: Virginia, Maryland, North Carolina, South Carolina, Georgia
- Virginia
 - Chesapeake Bay, James River
 - 1607: three ships of the London Company (later called the Virginia Company) arrive in Virginia, seeking gold and other riches
 - Establishment of Jamestown, first continuous English colony in the New World
 - Trade with Powhatan Indians (see also Eastern Woodland Indians, above)
 - John Smith
 - Pocahontas, marriage to John Rolfe
 - Diseases kill many people, both colonists and Indians
 - The Starving Time
 - Clashes between American Indians and English colonists
 - Development of tobacco as a cash crop, development of plantations
 - 1619: first African laborers brought to Virginia
- Maryland
 - A colony established mainly for Catholics
 - Lord Baltimore
- South Carolina
 - Charleston
 - Plantations (rice, indigo) and slave labor
- Georgia
 - James Oglethorpe’s plan to establish a colony for English debtors
- Slavery in the Southern colonies
 - Economic reasons that the Southern colonies came to rely on slavery (for example, slave labor on large plantations)
 - The difference between indentured servants and slaves: slaves as property
 - The Middle Passage

New England Colonies

- New England colonies: Massachusetts, New Hampshire, Connecticut, Rhode Island
- Gradual development of maritime economy: fishing and shipbuilding
- Massachusetts
 - Colonists seeking religious freedom: in England, an official “established” church (the Church of England), which did not allow people to worship as they chose
 - The Pilgrims
 - From England to Holland to Massachusetts
 - 1620: Voyage of the Mayflower
 - Significance of the Mayflower Compact

Plymouth, William Bradford

Helped by Wampanoag Indians: Massasoit, Tisquantum (Squanto)

The Puritans

Massachusetts Bay Colony, Governor John Winthrop: “We shall be as a city upon a hill.”

Emphasis on reading and education, the New England Primer

- Rhode Island
 - Roger Williams: belief in religious toleration
 - Anne Hutchinson

Middle Atlantic Colonies

- Middle Atlantic colonies: New York, New Jersey, Delaware, Pennsylvania
 - New York
 - Dutch settlements and trading posts in “New Netherland”
 - Dutch West India Company acquires Manhattan Island and Long Island through a (probably misunderstood) purchase from the Indians; Dutch establish New Amsterdam (today, New York City)
 - English take over from the Dutch, and rename the colony New York
 - Pennsylvania
 - William Penn
 - Society of Friends, “Quakers”
 - Philadelphia
- *Life in a Colonial Town* by Sally Senzell Isaacs (2000)
 - *Colonial Life* by Brendan January (2000)
 - *If You Lived in Williamsburg In Colonial Days* by Barbara Brenner (2000)
 - *The Pilgrims of Plimoth* by Marcia Sewall (1986)
 - *A Horse’s Tale* by Susan Lubner (2008)
 - *A Day in the Life of a Colonial Indigo Planter* by Laurie Krebs (2004)
 - *Life in Colonial Boston* by Jennifer Blizin Gillis (2003)
 - *James Towne: Struggle for Survival* by Marcia Sewall (2001)
 - *Anne Hutchinson’s Way* by Jeannine Atkins (2007)

GRADE 4

Domain: The American Revolution

Undertake a more detailed study of the causes, major figures, and consequences of the American Revolution, with a focus on main events and figures, as well as these questions: What caused the colonists to break away and become an independent nation? What significant ideas and values are at the heart of the American Revolution?

Background: The French and Indian War

- Also known as the Seven Years’ War, part of an ongoing struggle between Britain and France for control of colonies in various regions around the world (in this case, in North America)
- Alliances with Native Americans
- The Battle of Quebec
- British victory gains territory but leaves Britain financially weakened.

Causes and Provocations

- British taxes, “No taxation without representation”
- Boston Massacre, Crispus Attucks
- Boston Tea Party

- The Intolerable Acts close the port of Boston and require Americans to provide quarters for British troops
- First Continental Congress protests to King George III
- Thomas Paine's Common Sense

The Revolution

- Paul Revere's ride, "One if by land, two if by sea"
- Lexington and Concord
 - The "shot heard 'round the world"
 - Redcoats and Minute Men
- Bunker Hill
- Second Continental Congress: George Washington appointed commander in chief of Continental Army
- Declaration of Independence
 - Primarily written by Thomas Jefferson
 - Adopted July 4, 1776
 - "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness."
- Women in the Revolution: Elizabeth Freeman, Deborah Sampson, Phillis Wheatley, Molly Pitcher
- Loyalists (Tories)
- Victory at Saratoga, alliance with France
- European helpers (Lafayette, the French fleet, Bernardo de Galvez, Kosciusko, von Steuben)
- Valley Forge
- Benedict Arnold
- John Paul Jones: "I have not yet begun to fight."
- Nathan Hale: "I only regret that I have but one life to lose for my country."
- Cornwallis: surrender at Yorktown

American Symbols and Figures

- Recognize and become familiar with the significance of *Spirit of '76* (painting)
- Events Leading to the American Revolution by Linda R. Wade (2001)
- The Revolutionary War by Brendan January (2000)
- Paul Revere's Ride by Henry Wadsworth Longfellow (1990)
- The Battles of Lexington and Concord by Judith Peacock (2002)
- Can't You Make Them Behave, King George? by Jean Fritz (1977)
- Lexington and Concord by Deborah Kent (1997)
- Sleds on Boston Common: A Story From the American Revolution by Louise Borden (2000)
- Give Me Liberty! The Story of the Declaration of Independence by Russell Freedman (2000)
- Final Years of the American Revolution by Linda R. Wade (2001)

Domain: Making a Constitutional Government

Examine some of the basic values and principles of American democracy, in both theory and practice, as defined in the Declaration of Independence and the U. S. Constitution, both in historical context and in terms of present-day practice. In examining the significance of the U. S. Constitution, introduce students to the unique nature of the American experiment, the difficult task of establishing a democratic government, the compromises the framers of the Constitution were willing to make, and the persistent threats to success. In order to appreciate the boldness and fragility of the American attempt to establish a republican government based on a constitution, students should know that republican governments were rare at this time. Discuss with students basic questions and issues about government, such as: Why do

societies need government? Why does a society need laws? Who makes the laws in the United States? What might happen in the absence of government and laws?

Main ideas behind the Declaration of Independence

- The proposition that “All men are created equal”
- The responsibility of government to protect the “unalienable rights” of the people
- Natural rights: “Life, liberty, and the pursuit of happiness”
- The “right of the people ... to institute new government”

Making a New Government: From the Declaration to the Constitution

- Definition of “republican” government: republican = government by elected representatives of the people
- Articles of Confederation: weak central government
- “Founding Fathers”: James Madison as “Father of the Constitution”
- Constitutional Convention
 - Arguments between small and large states
 - The divisive issue of slavery, “three-fifths” compromise

The Constitution of the United States

- Preamble to the Constitution: “We the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.”
- The separation and sharing of powers in American government: three branches of government
 - Legislative branch: Congress = House of Representatives and Senate, makes laws
 - Executive branch: headed by the president, carries out laws
 - Judicial branch: a court system headed by the Supreme Court (itself headed by the Chief Justice), deals with those who break laws and with disagreements about laws
- Checks and balances, limits on government power, veto
- The Bill of Rights: first ten amendments to the Constitution, including:
 - Freedom of religion, speech, and the press (First Amendment)
 - Protection against “unreasonable searches and seizures”
 - The right to “due process of law”
 - The right to trial by jury
 - Protection against “cruel and unusual punishments”

Levels and functions of government (national, state, local)

- Identify current government officials, including
 - President and vice-president of the U.S.
 - State governor
- State governments: established by state constitutions (which are subordinate to the U.S. Constitution, the highest law in the land), like the national government, each state government has its legislative, executive, and judicial branches
- Local governments: purposes, functions, and officials
- How government services are paid for (taxes on individuals and businesses, fees, tolls, etc.)
- How people can participate in government

American Symbols and Figures

- Recognize and become familiar with the significance of
 - White House and Capitol Building
 - Great Seal of the United States

- *A More Perfect Union: The Story of our Constitution* by Betsy and Giulio Maestro (1987)
- *The Constitution* by Warren Colman (1987)
- *The United States Constitution* by Karen Price Hossell (2004)
- *If You Were There When They Signed the Constitution* by Elizabeth Levy (1987)
- *Shh! We're Writing the Constitution* by Jean Fritz (1987)
- *Designing America: The Constitutional Convention* by Sean Price (2008)
- *The Declaration of Independence* by Elaine Landau (2008)
- *The U.S. Constitution and You* by Syl Sobel (2001)
- *What Are the Parts of Government?* by William David Thomas (2008)
- *The Congress of the United States* by Christine Taylor-Butler (2008)
- *The Bill of Rights* by Michael Burgan (2002)
- *The Bill of Rights* by Christine Taylor-Butler (2008)
- *The Great Seal of the United States* by Terri DeGezelle (2004)
- *James Madison and Dolley Madison and Their Times* by Robert Quackenbush (1992)

Domain: Reformers

Introduce some prominent people and movements in the ferment of social change in America prior to the Civil War.

- Abolitionists
- Dorothea Dix and the treatment of the insane
- Horace Mann and public schools
- Women's rights
 - Seneca Falls convention
 - Elizabeth Cady Stanton
 - Lucretia Mott
 - Amelia Bloomer
 - Sojourner Truth
- *Dorothea Dix: Social Reformer* by Barbara Witterman (2003)
- *The Abolitionist Movement* by Elaine Landau (2004)
- *If You Lived When Women Won Their Rights* by Anne Kamma (2006)
- *Created Equal* by Ann Rossi (2005)
- *Only Passing Through: The Story of Sojourner Truth* by Anne Rockwell (2000)
- *In Their Own Words: Sojourner Truth* by Peter and Connie Roop (2002)
- *The Road to Seneca Falls: A Story about Elizabeth Cady Stanton* by Gwennyth Swain (1996)
- *The Seneca Falls Women's Rights Convention* by Sabrina Crewe and Dale Anderson (2005)
- *Elizabeth Cady Stanton* by Lucile Davis (1998)
- *Lucretia Mott* by Lucile Davis (1998)
- *Working for Change: The Struggle for Women's Right to Vote* by Leni Donlan (2008)
- *A Timeline of the Abolitionist Movement* by Judy Levine (2004)

GRADE 5

Domain: The Civil War: Causes, Conflicts, Consequences

Undertake a more detailed study of the causes, major figures, and consequences of the Civil War.

Toward the Civil War

- Abolitionists: William Lloyd Garrison and *The Liberator*, Frederick Douglass
- Slave life and rebellions
- Industrial North versus agricultural South
- Mason-Dixon Line
- Controversy over whether to allow slavery in territories and new states
 - Missouri Compromise of 1820
 - Dred Scott decision allows slavery in the territories
- Importance of Harriet Beecher Stowe's *Uncle Tom's Cabin*
- John Brown, Harper's Ferry
- Lincoln: "A house divided against itself cannot stand."
 - Lincoln-Douglas debates
 - Lincoln elected president, Southern states secede

The Civil War

- Fort Sumter
- Confederacy, Jefferson Davis
- Yankees and Rebels, Blue and Gray
- First Battle of Bull Run
- Robert E. Lee and Ulysses S. Grant
- General Stonewall Jackson
- Ironclad ships, battle of the USS Monitor and the CSS Virginia (formerly the USS Merrimack)
- Battle of Antietam Creek
- The Emancipation Proclamation
- Gettysburg and the Gettysburg Address
- African-American troops, Massachusetts Regiment led by Colonel Shaw
- Sherman's march to the sea, burning of Atlanta
- Lincoln re-elected, concluding words of the Second Inaugural Address
("With malice toward none, with charity for all. . .")
- Richmond (Confederate capital) falls to Union forces
- Surrender at Appomattox
- Assassination of Lincoln by John Wilkes Booth

Reconstruction

- The South in ruins
- Struggle for control of the South, Radical Republicans vs. Andrew Johnson, impeachment
- Carpetbaggers and scalawags
- Freedmen's Bureau, "40 acres and a mule"
- 13th, 14th, and 15th Amendments to the Constitution
- Black Codes, the Ku Klux Klan and "vigilante justice"
- End of Reconstruction, Compromise of 1877, all federal troops removed from the South

- *A Slave Family* by Bobbie Kalman (2003)
- *Sisters Against Slavery: A Story about Sarah and Angelina Grimke* by Stephanie Sammartino McPherson (1999)
- *Abe Lincoln Goes to Washington* by Cheryl Harness (1997)
- *The Emancipation Proclamation* by Ann Heinrichs (2002)
- *The Gettysburg Address* by Abraham Lincoln (1995)
- *Bull Run* by Paul Fleischman (1993)
- *The Home Fronts in the Civil War* by Dale Anderson (2004)
- *Life on a Plantation* by Bobbie Kalman (1997)
- *John Brown: His Fight for Freedom* by John Hendrix (2009)
- *Seven Miles to Freedom: The Robert Smalls Story* by Janet Halfman (2008)
- *The Reconstruction Amendments* by Michael Burgan (2006)
- *The Carpetbaggers* by Lucia Raatma (2005)

Appendix C:

Domains and Core Content Objectives for the *Core Knowledge Language Arts* Program, K–2

Appendix C: Domains and Core Content Objectives for the *Core Knowledge Language Arts* Program, K–2

When using read-alouds to build content knowledge within a domain, it is important to start by identifying the specific knowledge that students are expected to learn over the course of the read-aloud domain. We offer the objectives below, taken from the Listening and Learning Strand of the *Core Knowledge Language Arts* program, as examples of what we call “Core Content Objectives.” Every read-aloud lesson should have both content objectives, as well as language arts objectives, identified as learning goals within the lesson.

Note: In the *Core Knowledge Language Arts* program, all domains are modular within a grade level, so that individual classrooms teachers may determine the teaching sequence of each domain. However, we highly recommend that, whenever possible, teachers using the *Core Knowledge Language Arts* materials follow the recommended sequence below, as many factors, including the length of individual read-alouds within the domain, overall number of lessons in the domains, vocabulary density and level of abstraction and complexity, have been used to come up with the recommended sequence.

Kindergarten

1. Nursery Rhymes and Fables
2. The Five Senses
3. Stories
4. Plants
5. Farms
6. Native Americans
7. Kings and Queens
8. Seasons and Weather
9. Columbus and the Pilgrims
10. Colonial Towns and Townspeople
11. Taking Care of the Earth
12. Presidents and American Symbols

Grade 1

1. Fables and Stories
2. The Human Body
3. Different Lands, Similar Stories
4. Early World Civilizations
5. Early American Civilizations
6. Mozart and Music
7. Astronomy
8. The History of the Earth
9. Animals and Habitats
10. Fairy Tales
11. The Birth of Our Nation
12. Frontier Explorers

Grade 2

1. Stories and Poetry
2. Early Asian Civilizations
3. Cycles in Nature
4. The Ancient Greek Civilization
5. Greek Myths
6. Insects
7. Westward Expansion
8. The U.S. Civil War
9. Charlotte’s Web I
10. Charlotte’s Web II
11. Immigration
12. Fighting for a Cause

Kindergarten

Nursery Rhymes and Fables

- Demonstrate familiarity with nursery rhymes and fables
- Recite some nursery rhymes
- Identify rhyming words in nursery rhymes
- Identify lines that repeat, and/or dialogue in nursery rhymes
- Describe the characters and events in nursery rhymes and fables
- Explain that fables teach a lesson that is stated as the moral of the story
- Identify the moral of fables
- Explain how animals often act as people in fables (personification)

The Five Senses

- Identify and demonstrate understanding of the five senses: sight, hearing, smell, taste, and touch
- Identify each of the body parts associated with the five senses
- Provide simple explanations about how the eyes, ears, nose, tongue, and skin work and their function
- Describe how the five senses help humans learn about their world
- Explain the contributions of Ray Charles
- Explain the contributions of Helen Keller
- Describe the challenges of someone who is blind or deaf
- Understand the impact of small sensations on our experiences
- Understand how we can enhance the sense of sight and sense of hearing
- Become familiar with instruments invented to aid the senses of sight and hearing

Stories

- Listen to and then demonstrate familiarity with stories, including the ideas they express
- Understand that fiction can be in many different forms, including folktales, trickster tales, and tall tales
- Identify the setting of a given story
- Identify the characters of a given story
- Identify the plot of a given story

Plants

- Understand that there are many different kinds and sizes of plants
- Understand that different kinds of plants grow in different environments
- Understand that plants are living things
- Describe what plants need to live and grow: food, water, air, and sunlight
- Identify the root, stem, branch, leaf, flower, fruit, and seed of a plant
- Explain that roots anchor the plant and take in water and nutrients
- Explain that stems support the plant and carry water and nutrients to the various parts of the plant
- Explain that the plant makes its food in the leaves
- Explain that seeds are the beginning of new plants
- Describe how bees collect nectar and pollen
- Understand how bees make and use honey
- Describe the important role bees play in plant pollination
- Understand that some plants produce fruit to hold seeds
- Demonstrate familiarity with the tall tale “Johnny Appleseed”
- Compare and contrast fruits and seeds of different plants
- Understand the basic life cycle of plants
- Identify the part of specific plants that are eaten by people
- Compare and contrast deciduous and evergreen plants
- Identify things that plants provide us: oxygen, food, and important products
- Understand the life and scientific achievements of George Washington Carver

Farms

- Explain what a farm is
- Describe a farmer's and shepherd's job
- Identify animals found on farms and the sounds they make
- Identify needs of farm animals: food, water, and space to live and grow
- Match pictures and/or names of farm animal babies to their adult parents
- Describe how farm animal babies need to be fed and cared for by their parents or people
- Explain why farmers raise animals and grow crops
- Identify foods that come from animals
- Identify crops as plants grown on farms for use as food
- Describe how farmers protect their crops from drought, weeds, and pests
- Sequence the seasonal rhythm of planting, growing, and harvesting
- Describe how some food comes from farms as crops
- Sequence events of crops from farm to store (planted, harvested, transported, packaged)
- Identify buildings found on farms
- Identify machines and tools of farming
- Describe how farming has changed through the years

Native Americans

- Explain that there are many tribes of Native Americans
- Identify the environment in which the Sioux lived
- Identify the Sioux as a nomadic tribe
- Describe the food, clothing, and shelter of the Sioux
- Understand the importance of the buffalo to the Sioux
- Identify the environment in which the Wampanoag lived
- Understand how the Wampanoag tribe lived
- Identify the Wampanoag as a settled tribe
- Describe the food, clothing, and shelter of the Wampanoag
- Understand that Native Americans still live in the U.S. today

Kings and Queens

- Describe what a king or queen does
- Identify and describe royal objects associated with a king or queen
- Indicate that kings and queens still exist today, but that there were many more kings and queens long ago
- Describe a royal family
- Identify important factors (children, partnerships, arranged marriages) that ensured a royal family's success
- Describe appropriate dress and manners used in meeting and/or talking with kings and queens
- Explain that proper dress and manners in the presence of a member of the royal family is a sign of respect for the importance of this person
- Demonstrate familiarity with the poem "Happy Thought"
- Understand that kings usually possess gold and other treasures
- Discuss the difference between valuing relationships with people and valuing wealth
- Understand contemporary references to someone having *the Golden Touch* or *the Midas Touch*
- Describe the behaviors that reinforce that kings and queens are royal
- Recite "Old King Cole"
- Recite "Sing a Song of Sixpence"
- Describe the characters, settings, and plots in the stories
- Discuss the lessons in *Cinderella* and in *Snow White and the Seven Dwarfs* that show goodness prevails and is rewarded

Seasons and Weather

- Demonstrate understanding of the following units of time and their relationship to one another: day, week, month, year
- Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
- Characterize winter as generally the coldest season, summer as generally the warmest season, and spring and autumn as transitional seasons
- Characterize the North and South Poles as always cold in temperature, the middle section of the earth as usually warm, and the United States as having four seasons
- Identify the following characteristics of thunderstorms: heavy rain, thunder, lightning, and strong wind
- Name at least one month in a specific season while referring to a calendar
- Name at least one holiday in a specific season
- Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring, etc.)
- Identify ways in which weather affects daily routines, such as dress, activities, etc.
- Describe daily weather conditions of their own locality in terms of temperature (hot, warm, cool, cold); cloud cover (sunny, cloudy); and precipitation (rain, snow, or sleet)
- Demonstrate familiarity with the poem “I Do Not Mind You, Winter Wind”
- Draw pictures that show an understanding of each season
- Describe safe and unsafe behaviors during severe weather
- Identify and describe different types of severe weather
- Identify a thermometer as an instrument used to measure temperature and describe how it works, i.e., when the liquid in the thermometer rises, it is hotter outside; when the liquid descends, it is cooler
- Explain the lesson the grasshopper learns at the end of the fable, “The Grasshopper and the Ants”
- Identify the four seasons and name activities that are associated with those seasons
- Understand why weather prediction is important in their daily lives

Columbus and the Pilgrims

- Identify the continents of North America, South America, Europe, Africa, and Asia
- Understand why Europeans wanted to travel to Asia
- Describe the accomplishments of Christopher Columbus
- Identify King Ferdinand and Queen Isabella of Spain
- Recall the year of Columbus’s first voyage to America: 1492
- Recall the names of Columbus’ three ships: Niña, Pinta, Santa Maria
- Explain why Columbus called the land “India” and the inhabitants “Indians”
- Explain why Europeans eventually thought Columbus had discovered a “New World”
- Identify reasons why the Pilgrims left England
- Describe the Pilgrims’ voyage on the Mayflower
- Explain the significance of Plymouth Rock
- Describe the Pilgrims’ first year in America
- Describe the first Thanksgiving Day celebration

Colonial Towns and Townspeople

- Identify the key characteristics and differences between “towns,” and “the country” or “countryside” during the colonial period of American history
- Understand that long ago, during the colonial period, families who lived in the country on farms were largely self-sufficient, and that this meant all family members had many daily responsibilities and chores
- List similarities and differences between modern family life and colonial farm life
- Describe some features of colonial towns, such as a town square, shops, and adjacent buildings
- Understand that tradespeople had an occupation and expertise in a particular job
- Name different tradespeople found in a colonial town

- Identify reasons why people who lived in the country traveled to town
- Describe how a watermill works
- Identify corn and wheat as the original plant products needed for the production of flour
- Describe a miller as a tradesperson who grinds wheat and corn into flour using a mill
- Describe a baker as a tradesperson who bakes bread using flour
- Explain how the tradespeople in colonial towns saved farming families time and effort
- Describe what working in a watermill was like
- Compare the life of a miller to the life of a king
- Identify cotton, wool, and flax as the original plant or animal products needed for making cloth
- Describe a spinner as a tradesperson who made thread or yarn from cotton, wool, or flax by spinning it on a spinning wheel
- Identify, and associate with the appropriate trade, the tools used by tradespeople
- Describe a weaver as a tradesperson who used thread or yarn on a loom to make cloth
- Describe the process of making cloth from cotton or wool
- Describe the steps involved in running a spinning wheel: licking the fingers to smooth down the fibers, twisting the thread, and stepping on the treadle
- Describe dressmakers and tailors as tradespeople who made clothing by sewing
- Describe a hatter as a tradesperson who made men's hats
- Describe a cobbler as a tradesperson who made and fixed shoes
- Understand that ready-made clothing was not available for sale in colonial shops; clothing was made to order according to the exact measurements of each person
- Describe a bricklayer as a tradesperson who built with bricks
- Describe a mason as a tradesperson who built with stones
- Describe a carpenter as a tradesperson who built with wood
- Identify some tools tradespeople used
- Describe a blacksmith as a tradesperson who heated iron and formed it into metal objects
- Identify the essential role of the blacksmith in making tools for other tradespeople
- Recognize the necessity of heating objects before the blacksmith could shape them
- Describe a teacher as a townsperson responsible for educating young children
- Identify some characteristics of colonial common schools (multiple grade levels, one-room schoolhouse, mostly boys)
- Compare and contrast common schools with today's schools
- Understand the purpose of laws
- Describe a sheriff as a townsperson who arrested criminals
- Describe a judge as a townsperson who decided who was innocent and guilty, and what punishment guilty people should receive
- Review tradespeople and their roles

Taking Care of the Earth

- Understand that Earth is composed of land, water, and air
- Identify examples of land, water, and air from their own environments
- Understand that humans, plants, and animals depend on Earth's land, water, and air to live
- Explain why people have a special responsibility to take care of the earth
- Understand that humans generate large amounts of garbage, which must be disposed of
- Sequence what happens to garbage from its creation to being dumped in the landfill
- Explain what a landfill is and why it is a dangerous place
- Evaluate whether landfills are an adequate solution to the problem of garbage
- Understand that natural resources are things found in nature that are valuable and of great importance to people
- Identify key natural resources and describe how people use them
- Recognize the phrase "Reduce, reuse, recycle!" and explain how doing these three things can help to conserve natural resources
- Understand that people can conserve natural resources by reducing their use of them
- Understand that people can conserve natural resources by reusing materials

- Identify the recycling symbol and understand that recycled materials are made from reused garbage
- Identify common recyclable materials, including glass, plastic, aluminum, cardboard, and paper
- Understand that recyclable materials go from people's homes and businesses to a recycling center, where the materials are sorted according to different types of recyclables, and then they are taken to a recycling factory to be made into something new
- Understand that composting is a type of recycling in which discarded food scraps decay in an outdoor pile or bin for that purpose and eventually become garden soil
- Sequence what happens to a piece of discarded food from table to compost pile to garden
- Identify foods that can be composted
- Discuss garbage as being a problem and various means of garbage disposal in terms of a solution
- Understand that people cause pollution when they make the earth dirty or dangerous with their garbage
- Understand that land, air, and water all suffer from different types of pollution, and all types of pollution are caused by human activities
- Understand that if people are careful and creative, they can help reduce pollution
- Understand that air pollution from one location can make even the air that is far away in other places around the world dirty
- Identify sources of air pollution, including cars and electricity produced by coal-fired power plants
- Understand the effect of air pollution on human health
- Explain how to reduce air pollution by conserving natural resources
- Compare and contrast fresh water, salt water, and wastewater
- Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth
- Identify sources of water pollution, including factory waste and garbage
- Explain that a water treatment plant can remove unhealthy chemicals and pollutants from water to make it usable again
- Understand what a conservationist does
- Understand that John Muir was one of the first conservationists
- Identify possible solutions to the problems discussed throughout the domain
- Understand the importance of individual actions to take care of the earth

Presidents and American Symbols

- Name the current president of the United States
- Recognize the White House as the president's home
- Describe Washington, D.C., as the city where the current president lives and where monuments of past presidents can be found
- Identify the American flag
- Describe the differences between a president and a king
- Name George Washington as someone admired for his honesty
- Understand that the cherry tree story is a legend
- Describe George Washington as a general who fought for American independence
- Recognize that General Washington led his army to victory even though his army was smaller than the English army
- Recognize George Washington as the first president of the United States
- Recognize the sacrifices George Washington made for the country
- Recognize Thomas Jefferson as the third president of the United States
- Identify Thomas Jefferson as the primary author of the Declaration of Independence
- Describe the purpose of the Declaration of Independence as a statement of America's liberty
- Identify the Statue of Liberty
- Recognize Abraham Lincoln as an important president of the United States

- Identify that Abraham Lincoln was known as “Honest Abe”
- Recognize Theodore Roosevelt as an important president of the United States
- Know that Theodore Roosevelt overcame childhood health problems
- Know that Theodore Roosevelt loved the outdoors
- Know that Theodore Roosevelt worked for nature conservation
- Identify the Mount Rushmore presidents
- Describe Mount Rushmore as a monument

First Grade

Fables and Stories

- Demonstrate familiarity with particular fables and stories
- Identify characteristics of fables: short, moral, personification
- Explain in their own words the moral of a particular fable
- Identify character, plot, and setting as basic story elements
- Describe the characters, plot, and setting of a given fable or story
- Understand that fables and folktales are two types of fiction

Builds on the following objectives targeted in kindergarten:

- Nursery Rhymes and Fables
 - Demonstrate familiarity with nursery rhymes and fables
 - Describe the characters and events in nursery rhymes and fables
 - Explain that fables teach a lesson that is stated as the moral of the story
 - Identify the moral of fables
 - Explain how animals often act as people in fables (personification)
- Stories
 - Listen to and then demonstrate familiarity with stories, including the ideas they express
 - Understand that fiction can be in many different forms, including folktales, trickster tales, and tall tales
 - Identify the setting of a given story
 - Identify the characters of a given story
 - Identify the plot of a given story

The Human Body

- Understand that the human body is a network of systems
- Identify each of the five body systems: skeletal, muscular, digestive, circulatory, and nervous
- Recall basic facts about the skeletal system
- Recall basic facts about the muscular system
- Define the heart as a muscle that never stops working
- Recall basic facts about the digestive system
- Recall basic facts about the circulatory system
- Recall basic facts about the nervous system
- Identify the brain as the body's control center
- Understand that germs may cause disease in the body
- Explain the importance of vaccination in preventing disease
- Identify Edward Jenner as the man who developed the first vaccine
- Identify Louis Pasteur as the man who discovered pasteurization
- Explain the importance of exercise, cleanliness, a balanced diet, and rest for bodily health
- Explain the importance of regular checkups
- Explain the importance of vaccinations
- Identify the food pyramid and its component food groups

Builds on the following objectives targeted in kindergarten:

- The Five Senses
 - Identify and demonstrate understanding of the five senses: sight, hearing, smell, taste, and touch
 - Identify each of the body parts associated with the five senses
 - Provide simple explanations about how the eyes, ears, nose, tongue, and skin work and their function
 - Describe how the five senses help humans learn about their world

Different Lands, Similar Stories

- Understand that fictional stories come from the author’s imagination
- Identify folktales as a type of fiction
- Understand that stories have a beginning, middle, and end
- Describe the characters, plot, and setting of *Little Red Riding Hood*
- Describe the characters, plot, and setting of *Lon Po Po*
- Describe the characters, plot, and setting of *Pretty Salma*
- Describe the characters, plot, and setting of *Tom Thumb*
- Describe the characters, plot, and setting of *Thumbelina*
- Describe the characters, plot, and setting of *Issun Boshi*
- Describe the characters, plot, and setting of *Mufaro’s Beautiful Daughters*
- Describe the characters, plot, and setting of *The Irish Cinderlad*
- Understand that people from different lands tell similar stories

Builds on the following objectives targeted in kindergarten:

- Stories
 - Listen to and then demonstrate familiarity with stories, including the ideas they express
 - Understand that fiction can be in many different forms, including folktales, trickster tales, and tall tales
 - Identify the setting of a given story
 - Identify the characters of a given story
 - Identify the plot of a given story
- Kings and Queens
 - Describe what a king or queen does
 - Identify and describe royal objects associated with a king or queen
 - Indicate that kings and queens still exist today, but that there were many more kings and queens long ago
 - Describe a royal family
 - Describe the behaviors that reinforce that kings and queens are royal
 - Discuss the lessons in *Cinderella* and in *Snow White and the Seven Dwarfs*, which show that goodness prevails and is rewarded

Early World Civilizations

- Locate the area known as Mesopotamia on a world map or globe, and identify it as a part of Asia
- Explain the importance of rivers, canals, and flooding to support farming in Mesopotamia and ancient Egypt
- Describe the city of Babylon
- Identify and describe the significance of structures built in Mesopotamia and ancient Egypt
- Identify the way of writing in Mesopotamia and ancient Egypt
- Explain why writing is important to a civilization
- Describe the Code of Hammurabi
- Explain why rules and laws are important to the development of a civilization
- Recognize how a leader is important to the development of a civilization
- Describe aspects of religion in Mesopotamia and ancient Egypt
- Identify Mesopotamia as the “Cradle of Civilization”
- Understand that a civilization evolves and changes over time
- Locate Egypt on a world map or globe, and identify it as a part of Africa
- Explain that much of Egypt is the Sahara Desert
- Identify and explain the significance of Hatshepsut and Tutankhamun as pharaohs of ancient Egypt
- Describe key components of a civilization
- Understand that much of what we know about ancient Egypt is because of the work of archaeologists

Three World Religions (Optional)

- Identify Judaism, Christianity, and Islam as major monotheistic world religions
- Locate Jerusalem and the area known as the Middle East on a map
- Define monotheism as the belief in one God
- Identify the Western Wall (or the Wailing Wall) as associated with Judaism, the church of the Holy Sepulchre with Christianity, and the Dome of the Rock with Islam
- Identify the Hebrews as the ancient people who were descendants of Abraham
- Identify the names for followers of Judaism, Christianity, and Islam
- Identify Moses, Jesus Christ, and Muhammad and their significance
- Demonstrate familiarity with holidays associated with Judaism, Christianity, and Islam
- Recognize symbols for Judaism, Christianity, and Islam
- Identify the holy book of Judaism, Christianity, and Islam
- Identify places of worship for Judaism, Christianity, and Islam
- Understand that the religion of Christianity developed after Judaism
- Recognize that both Christians and Jews follow the Ten Commandments
- Understand that Islam originated in Arabia

Does not build on any objectives targeted in kindergarten

Early American Civilizations

- Locate the continents of Asia and North America on a world map or globe
- Understand that prehistoric nomads followed the animals they hunted
- Explain the importance of hunting among early peoples
- Understand that the first people in North America arrived by crossing a “land bridge” between Asia and North America
- Understand that a shift occurred from hunting and gathering to farming among early peoples
- Compare and contrast hunter-gatherer societies and Mayan society
- Understand the importance of extended family to the Maya
- Identify the area in which the Maya, Aztec, and Inca each lived
- Understand that the Maya developed large cities or population centers in the rainforests of Mexico and Central America many, many years ago
- Understand that the Maya, Aztec, and Inca had a religion, leaders, towns, and farming
- Understand that much of what we know about the Maya and the Inca is because of the work of archaeologists
- Understand that the Aztecs established a vast empire in central Mexico many, many years ago
- Identify the Aztec capital as Tenochtitlan
- Recognize by name the emperor of the Aztec, Moctezuma
- Understand that the Inca established a far-ranging empire in the Andes Mountains of Peru and Chile many, many years ago
- Recall that Machu Picchu is an Incan city

Does not build on any objectives targeted in kindergarten

Mozart and Music

- Identify Mozart as a famous musician and composer who lived over two hundred years ago
- Describe Mozart as a prodigy, talented at a very young age
- Describe an instrument as an object designed to make musical sounds
- Identify a composer as a person who writes music by recording musical notes
- Describe instrumental music as a type of music that is produced by musical instruments only and does not include singing
- Retell the major events of Mozart’s life

- Recognize, sing, and play simple rhythms and melodies
- Understand the role of a patron in Mozart's time in as someone who helped a musician succeed
- Describe keyboard instruments, and name at least one example of a keyboard instrument
- Describe the woodwinds section of the orchestra, and name at least two woodwind instruments
- Describe opera as a performance in which singers tell a story with the help of the orchestra
- Describe a symphony as a composition, which uses many different instruments
- Identify the conductor as the leader of the orchestra
- Describe the brass section of the orchestra, and name at least two brass instruments
- Identify the conductor as the leader of the orchestra
- Recognize and begin to describe the mood of a piece of music

Builds on the following objectives targeted in kindergarten:

- Kings and Queens
 - Describe what a king or queen does
 - Identify and describe royal objects associated with a king or queen
 - Indicate that kings and queens still exist today, but that there were many more kings and queens long ago
 - Describe a royal family
 - Describe the behaviors that reinforce that kings and queens are royal
- Identify the beat in music, and increase his/her ability to keep a steady beat
- Describe the percussion section of the orchestra, and name at least two percussion instruments
- Describe the strings section of the orchestra, and name at least two stringed instruments
- Identify the four sections of the orchestra: woodwinds, brass, percussion, and strings

Astronomy

- Recognize the sun in the sky
- Understand that the sun, moon, and stars are located in outer space
- Understand that the sun is a source of energy, light, and heat
- Classify the sun as a star
- Identify Earth as a planet and our home
- Identify the Earth's rotation or spin as the cause of day and night
- Understand that other parts of the world experience nighttime while we have daytime
- Explain sunrise and sunset
- Understand that Earth orbits the sun
- Understand that stars are large, although they appear small in the night sky
- Describe stars as hot, distant, and made of gas
- Understand that astronomers study the moon and stars using telescopes
- Understand that people sometimes tell stories about the moon and stars
- Explain what a constellation is
- Identify the Big Dipper and the North Star
- Identify the four phases of the moon—new, crescent, half, full
- Understand that astronauts travel to outer space
- Describe the landing on the moon by American astronauts
- Explain the importance of the first trip to the moon
- State that the moon orbits the earth
- Explain that our solar system includes the sun and the planets that orbit around it
- Indicate that there are eight planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune)
- Classify Pluto as a dwarf planet

Builds on the following objectives targeted in kindergarten:

- Seasons and Weather
 - Demonstrate understanding of the following units of time and their relationship to one another: day, week, month, year
 - Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
 - Characterize winter as generally the coldest season, summer as generally the warmest season, and spring and autumn as transitional seasons
 - Characterize the North and South Poles as always cold in temperature, the middle section of the earth as usually warm, and the United States as having four seasons
 - Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring, etc.)
 - Identify a thermometer as an instrument used to measure temperature and describe how it works, i.e., when the liquid in the thermometer rises, it is hotter outside; when the liquid descends, it is cooler
- Taking Care of the Earth
 - Understand that Earth is composed of land, water, and air
 - Understand that humans, plants, and animals depend on Earth's land, water, and air to live
 - Understand that natural resources are things found in nature that are valuable and of great importance to people
 - Understand that land, air, and water all suffer from different types of pollution, and all types of pollution are caused by human activities
 - Understand that air pollution from one location can make even the air that is far away in other places around the world dirty
 - Compare and contrast fresh water, salt water, and wastewater
 - Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth

The History of the Earth

- Identify geographical features of the earth's surface: oceans and continents
- Locate the North Pole, the South Pole, and the equator on a globe
- Describe the shape of the earth
- Understand that much of our knowledge of the earth and its history is the result of the work of many scientists
- Identify the layers of the earth: crust, mantle, core (outer and inner)
- Describe the crust
- Describe each of the layers inside the earth
- Describe volcanoes and geysers
- Identify common minerals in the earth
- Explain how minerals are used by people
- Identify the three types of rocks: metamorphic, sedimentary, and igneous
- Describe how heat, pressure, and time cause many changes inside the earth
- Describe how rocks and minerals are taken from the earth
- Describe fossils
- Explain how fossils provide information about the history of the earth
- Explain how we know about dinosaurs
- Describe various dinosaurs
- Explain the significance of the La Brea Tar Pits

Builds on the following objectives targeted in kindergarten:

- Plants
 - Understand that there are many different kinds and sizes of plants

Understand that different kinds of plants grow in different environments

Describe what plants need to live and grow: food, water, air, and sunlight

Identify the root, stem, branch, leaf, flower, fruit, and seed of a plant

- Taking Care of the Earth

Understand that Earth is composed of land, water, and air

Identify examples of land, water, and air from their own environments

Understand that humans, plants, and animals depend on Earth's land, water, and air to live

Understand that natural resources are things found in nature that are valuable and of great importance to people

Identify key natural resources and describe how people use them

Animals and Habitats

- Describe what a habitat is
- Understand that living things live in habitats to which they are particularly suited
- Identify the characteristics of the Arctic tundra habitat
- Explain how Arctic animals have adapted to the Arctic tundra habitat
- Identify the characteristics of the Arctic Ocean habitat
- Explain how Arctic animals have adapted to the Arctic Ocean habitat
- Identify the characteristics of the desert habitat
- Explain how desert animals have adapted to the desert habitat
- Identify the characteristics of the grassland habitat
- Explain how grassland animals have adapted to the grassland habitat
- Identify the characteristics of the temperate deciduous forest habitat
- Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest habitat
- Identify the characteristics of the tropical rainforest habitat
- Explain how tropical rainforest animals have adapted to the tropical rainforest habitat
- Identify the characteristics of the freshwater habitat
- Understand that saltwater covers most of Earth and is found in several oceans
- Match specific plants and animals to their habitats
- Classify animals on the basis of the types of food they eat (herbivore, carnivore, omnivore)
- Describe the landscape of the ocean floor
- Understand that ocean life is very diverse
- Understand that water covers most of Earth and is found in several oceans
- Classify water habitats as either freshwater or saltwater habitats
- Understand why and how habitat destruction can cause extinction
- Identify the characteristics of the bald eagles' habitat
- Identify and locate the oceans of the world on a globe: Arctic, Pacific, Atlantic, Indian, Southern

Builds on the following objectives targeted in kindergarten:

- Plants
 - Understand that plants are living things
 - Describe what plants need to live and grow: food, water, air, and sunlight
 - Understand that there are many different kinds and sizes of plants
 - Understand that different kinds of plants grow in different environments
 - Identify the root, stem, leaf, flower, and seed of a plant
 - Explain that roots anchor the plant and take in water and nutrients
 - Explain that stems support the plant and carry water and nutrients to the various parts of the plant
 - Explain that the plant makes its food in the leaves

Understand the basic life cycle of plants

Compare and contrast deciduous and evergreen plants

- Farms

Identify needs of farm animals: food; water; and space to live and grow

Describe how farm animal babies need to be fed and cared for by their parents or people

Match pictures and/or names of farm animal babies to their adult parents

- Seasons and Weather

Characterize the North and South Poles as always cold in temperature, the middle section of the earth as usually warm, and the United States as having four seasons

Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season

Characterize winter as generally the coldest season, summer as generally the warmest season, and spring and autumn as transitional seasons

Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring, etc.)

Describe the daily weather conditions of their own locality in terms of temperature (hot, warm, cool, cold), cloud cover (sunny or cloudy), and precipitation (rain, snow, or sleet)

- Taking Care of the Earth

Understand that humans, plants, and animals depend on Earth's land, water, and air to live.

Explain why people have a special responsibility to take care of the earth

Understand that humans generate large amounts of garbage which must be disposed of

Sequence what happens to garbage from its creation to being dumped in the landfill

Understand that natural resources are things found in nature that are valuable and of great importance to people

Recognize the phrase, "Reduce, reuse, recycle!" and explain how doing these three things can help to conserve natural resources

Understand that land, air, and water all suffer from different kinds of pollution, and all types of pollution are caused by human activities

Identify sources of air pollution, including cars and electricity produced by coal-fired power plants

Understand the effect of air pollution on human health

Compare and contrast fresh water, salt water, and waste water

Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth

Identify sources of water pollution, including factory waste and garbage

Fairy Tales

- Demonstrate familiarity with the fairy tale *Sleeping Beauty*
- Recognize what makes fairy tales different from other types of stories
- Identify common characteristics of fairy tales, such as "once upon a time" beginnings, royal characters, elements of fantasy, problems and solutions, and happy endings
- Identify the fairy tale elements of *Sleeping Beauty*
- Demonstrate familiarity with the fairy tale *Rumpelstiltskin*
- Identify the fairy tale elements of *Rumpelstiltskin*
- Identify the fairy tale elements of *Rapunzel*
- Demonstrate familiarity with the fairy tale *Rapunzel*
- Identify the fairy tale elements of *The Princess and the Pea*
- Compare and contrast different adaptations of fairy tales
- Demonstrate familiarity with the fairy tale *The Princess and the Pea*
- Demonstrate familiarity with the fairy tale *The Frog Prince*

- Identify the fairy tale elements of *The Frog Prince*
- Demonstrate familiarity with the fairy tale *Puss-in-Boots*
- Identify the fairy tale elements of *Puss-in-Boots*
- Identify the fairy tale elements of *Hansel and Gretel*
- Demonstrate familiarity with the fairy tale *Hansel and Gretel*
- Identify the fairy tale elements of *Jack and the Beanstalk*
- Demonstrate familiarity with the fairy tale *Jack and the Beanstalk*

Builds on the following objectives targeted in kindergarten:

- Stories
 - Listen to and then demonstrate familiarity with stories, including the ideas they express
 - Understand that fiction can be in many different forms, including folktales, trickster tales, and tall tales
 - Identify the setting of a given story
 - Identify the characters of a given story
 - Identify the plot of a given story
- Kings and Queens
 - Describe what a king or queen does
 - Identify and describe royal objects associated with a king or queen
 - Describe a royal family
 - Describe appropriate dress and manners used in meeting and/or talking with kings and queens

The Birth of Our Nation

- Identify the early English settlements on Roanoke Island and at Jamestown as colonies that were established before the Pilgrims landed at Plymouth Rock
- Understand that the first Africans in the English colonies came to Jamestown as indentured servants, not slaves
- Describe how the thirteen English colonies in America evolved from dependence on Great Britain to independence as a nation
- Locate the thirteen original colonies
- Describe the contributions of George Washington as Patriot, military commander, and first president
- Identify Washington, D.C., as the nation's capital
- Explain that the nation's capital, Washington, D.C., was named after George Washington
- Identify Martha Washington as the wife of George Washington
- Describe the contributions of Benjamin Franklin as Patriot, inventor, and writer
- Identify Thomas Jefferson as the author of the Declaration of Independence and the third president of the U.S.
- Explain the significance of the Declaration of Independence
- Identify "We hold these truths to be self-evident, that all men are created equal . . ." as a part of the Declaration of Independence
- Describe the Boston Tea Party
- Explain the significance of Paul Revere's ride
- Identify "One if by land, two if by sea"
- Identify Minutemen, Redcoats, and "the shot heard round the world"
- Explain the significance of The Fourth of July
- Retell the legend of Betsy Ross and the flag
- Describe the roles of African Americans, Native Americans, and women during the evolution from thirteen English colonies in America to independence as a nation
- Identify the U.S. flag, the Liberty Bell, and the bald eagle
- Explain the significance of the flag, the Liberty Bell, and the bald eagle as U.S. symbols

Builds on the following objectives targeted in kindergarten:

- Native Americans

- Explain that there are many tribes of Native Americans
- Identify the environment in which the Sioux lived
- Identify the Sioux as a nomadic tribe
- Describe the food, clothing, and shelter of the Sioux
- Understand the importance of the buffalo to the Sioux
- Identify the environment in which the Wampanoag lived
- Understand how the Wampanoag tribe lived
- Identify the Wampanoag as a settled tribe
- Describe the food, clothing, and shelter of the Wampanoag
- Understand that Native Americans still live in the U.S. today
- Kings and Queens
 - Describe what a king or queen does
- Columbus and The Pilgrims
 - Identify the continents of North America, South America, Europe, Africa, and Asia
 - Understand why Europeans wanted to travel to Asia
 - Describe the accomplishments of Christopher Columbus
 - Recall the year of Columbus's first voyage to America: 1492
 - Explain why Columbus called the land "India" and the inhabitants "Indians"
 - Explain why Europeans eventually thought Columbus had discovered a "New World"
 - Identify reasons why the Pilgrims left England
 - Describe the Pilgrims' voyage on the Mayflower
 - Explain the significance of Plymouth Rock
 - Describe the Pilgrims' first year in America
 - Describe the first Thanksgiving Day celebration
- Colonial Towns and Townspeople
 - Describe some features of colonial towns, such as a town square, shops, and adjacent buildings
- Presidents and American Symbols
 - Describe George Washington as a general who fought for American independence
 - Recognize that general Washington led his army to victory even though it was smaller than the English army
 - Recognize George Washington as the first President of the United States
 - Describe the differences between a president and a king
 - Identify the American flag
 - Recognize Thomas Jefferson as the third President of the United States
 - Identify Thomas Jefferson as the primary author of the Declaration of Independence
 - Describe the purpose of the Declaration of Independence as a statement of America's liberty

Frontier Explorers

- Locate the Appalachian Mountains on a map
- Recall basic facts about Daniel Boone
- Understand that Daniel Boone was a trailblazer
- Understand what the term "Wilderness Road" refers to
- Locate the Mississippi River on a map
- Locate the Rocky Mountains on a map
- Identify and locate the Louisiana Territory on a map
- Understand the significance of the Louisiana Purchase
- Explain the reasons that Lewis and Clark went on their expedition
- Understand that while the territory acquired in the Louisiana Purchase had not been explored or settled by people who lived in other parts of the United States until Lewis and Clark went on their expedition, there were many, many Native American tribes already living there
- Recall basic facts about Lewis and Clark's encounters with Native Americans

- Explain why and how Sacagawea helped Lewis and Clark

Builds on the following objectives targeted in kindergarten:

- Native Americans
 - Explain that there are many tribes of Native Americans
 - Identify the environment in which the Sioux lived
 - Identify the Sioux as a nomadic tribe
 - Describe the food, clothing, and shelter of the Sioux
 - Understand the importance of the buffalo to the Sioux
 - Identify the environment in which the Wampanoag lived
 - Understand how the Wampanoag tribe lived
 - Identify the Wampanoag as a settled tribe
 - Describe the food, clothing, and shelter of the Wampanoag
 - Understand that Native Americans still live in the U.S. today
- Columbus and The Pilgrims
 - Identify the continents of North America, South America, Europe, Africa, and Asia
 - Understand why Europeans wanted to travel to Asia
 - Describe the accomplishments of Christopher Columbus
 - Recall the year of Columbus's first voyage to America: 1492
 - Explain why Columbus called the land "India" and the inhabitants "Indians"
 - Explain why Europeans eventually thought Columbus had discovered a "New World"
 - Identify reasons why the Pilgrims left England
 - Describe the Pilgrims' voyage on the Mayflower
 - Explain the significance of Plymouth Rock
 - Describe the Pilgrims' first year in America
 - Describe the first Thanksgiving Day celebration
- Kings and Queens
 - Describe what a king or queen does
- Colonial Towns and Townspeople
 - Describe some features of colonial towns, such as a town square, shops, and adjacent buildings
- American Presidents and Symbols
 - Describe the differences between a president and a king
 - Recognize Thomas Jefferson as the third President of the United States
 - Identify Thomas Jefferson as the primary author of the Declaration of Independence
 - Describe the purpose of the Declaration of Independence as a statement of America's liberty

Second Grade*

*This listing is incomplete. The materials development of Grade 2 CKLA was in progress at the time of this listing.

Stories and Poetry

- Demonstrate familiarity with a particular fairy tale *Beauty and the Beast*
- Describe the characters, plot, and setting of a particular fairy tale
- Identify common characteristics of fairy tales such as “once upon a time” beginnings, royal characters, magical characters or events, and happy endings
- Identify the fairy tale elements of a particular fairy tale
- Identify fairy tales as a type of fiction
- Understand a particular poem or poems
- Recall some of the ideas expressed and some of the memorable words or phrases in these poems
- Understand the difference between lyric and narrative poems
- Recognize that narrative poems have characters, settings, plot, and dialogue
- Identify lyric poems as short, musical works that express ideas and feelings of one speaker
- Recognize that some poems contain rhyme that is not exact
- Identify words or phrases that appeal to the senses of sight, sound, taste, smell or touch
- Understand that poems often include similes or metaphors that compare two or more things
- Demonstrate familiarity with specific tall tales
- Identify the characters, plot, and setting of specific tall tales
- Identify tall tales as a type of fiction
- Identify exaggerations as a characteristic of tall tales
- Identify the exaggerations in specific tall tales

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Nursery Rhymes and Fables (Kindergarten)
 - Describe the characters and events in nursery rhymes and fables
 - Explain how animals often act as people in fables (personification)
 - Recite some nursery rhymes
 - Identify rhyming words in nursery rhymes
 - Identify lines that repeat, and/or dialogue in nursery rhymes
- Stories (Kindergarten)
 - Listen to and then demonstrate familiarity with stories, including the ideas they express
 - Understand that fiction can be in many different forms, including folktales, trickster tales, and tall tales
 - Identify the setting of a given story
 - Identify the characters of a given story
 - Identify the plot of a given story
- Fables and Stories (Grade 1)
 - Demonstrate familiarity with particular fables and stories
 - Identify character, plot, and setting as basic story elements
 - Describe the characters, plot, and setting of a given fable or story
 - Understand that fables and folktales are two types of fiction

Cycles in Nature

- Define the term *cycle*
- Define the term *seasonal cycle*
- Recognize that Earth orbits the sun and the sun does not move
- Understand that it takes one year for Earth’s orbit of the sun
- Explain the cause for seasons

- Identify four seasons in the U.S.: spring, summer, autumn (fall), winter
- Explain effects of seasonal changes on plants and animals
- Describe plant and animal processes in spring
- Describe plant and animal processes in summer
- Describe plant and animal processes in autumn
- Describe plant and animal processes in winter
- Define the term *life cycle*
- Identify four stages of the life cycle: birth, growth, reproduction, and death
- Describe the life cycle of a flowering plant (seed to seed)
- Describe the life cycle of a chicken (egg to egg)
- Describe the life cycle of a frog (egg to egg)
- Describe the life cycle of a butterfly (egg to egg)
- Define the term *metamorphosis*
- Recognize that most of Earth's surface is covered by water
- Identify the three states of matter in which water exists: solid, liquid, and gas
- Define the term *water cycle*
- Understand that there is a limited amount of water on Earth
- Describe evaporation and condensation
- Identify forms of precipitation
- Define humidity as the amount of moisture in the air
- Describe the formation of clouds
- Identify three types of clouds: cirrus, cumulus, and stratus
- Understand that not all water cycles back into the air
- Identify groundwater as a water resource for humans

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Plants (Kindergarten)
 - Understand that plants are living things
 - Describe what plants need to live and grow: food, water, air, and sunlight
 - Understand that there are many different kinds and sizes of plants
 - Understand that different kinds of plants grow in different environments
 - Identify the root, stem, leaf, flower, and seed of a plant
 - Explain that roots anchor the plant and take in water and nutrients
 - Explain that stems support the plant and carry water and nutrients to the various parts of the plant
 - Explain that the plant makes its food in the leaves
 - Understand the basic life cycle of plants
- Farms (Kindergarten)
 - Identify needs of farm animals: food; water; and space to live and grow
 - Describe how farm animal babies need to be fed and cared for by their parents or people
 - Match pictures and/or names of farm animal babies to their adult parents
- Seasons and Weather (Kindergarten)
 - Demonstrate understanding of the following units of time and their relationship to one another: day, week, month, year
 - Identify a thermometer as an instrument used to measure temperature and describe how it works, i.e., when the liquid in the thermometer rises, it is hotter outside; when the liquid descends, it is cooler
 - Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
 - Characterize winter as generally the coldest season, summer as generally the warmest season, and spring and autumn as transitional seasons
 - Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring, etc.)

Describe the daily weather conditions of their own locality in terms of temperature (hot, warm, cool, cold), cloud cover (sunny or cloudy), and precipitation (rain, snow, or sleet)

- **Taking Care of the Earth (Kindergarten)**
 - Understand that Earth is composed of land, water, and air
 - Understand that humans, plants, and animals depend on Earth's land, water, and air to live
 - Compare and contrast fresh water, salt water, and wastewater
 - Understand that many living things, including humans, need fresh water to survive, and that there is a limited supply of fresh water on Earth
 - Explain why people have a special responsibility to take care of the earth
- **Astronomy (Grade 1)**
 - Recognize the sun in the sky
 - Understand that the sun, moon, and stars are located in outer space
 - Understand that the sun is a source of energy, light, and heat
 - Classify the sun as a star
 - Identify Earth as a planet and our home
 - Identify the Earth's rotation or spin as the cause of day and night
 - Understand that other parts of the world experience nighttime while we have daytime
 - Explain sunrise and sunset
 - Understand that Earth orbits the sun
- **Animals and Habitats (Grade 1)**
 - Describe what a habitat is
 - Understand that living things live in habitats to which they are particularly suited
 - Identify the characteristics of specific habitats
 - Match specific plants and animals to their habitat
 - Explain how certain animals have adapted to their habitat
 - Understand that water covers most of Earth and is found in several oceans
 - Classify bodies of water as saltwater or freshwater habitats

Insects

- Classify insects as small six-legged animals
- Identify body parts of insects: head, thorax, abdomen (wings—optional)
- Describe composition and purpose of an insect's exoskeleton
- Define metamorphosis
- Recognize that most insects undergo a complete metamorphosis
- Describe four stages of the life cycle of insects that metamorphose
- Recognize that some newborn insects resemble the adults of their species
- Describe the molting process of some insects
- Distinguish between social and solitary insects
- Identify groups of social insects
- Describe the social behavior of an ant colony
- Describe the roles of honeybee workers, drones, and queens
- Cite ways in which insects may be helpful to people
- Cite ways in which insects may be harmful to people

Builds on the following objectives targeted in Kindergarten and Grade 1:

- **Plants (Kindergarten)**
 - Understand that plants are living things
 - Describe what plants need to live and grow: food, water, air, and light
 - Understand that there are many different kinds and sizes of plants
 - Understand that different kinds of plants grow in different environments
 - Identify the root, stem, leaf, flower, and seed of a plant

- Explain that roots anchor the plant and take in water and nutrients
- Explain that stems support the plant and carry water and nutrients to the various parts of the plant
- Explain that the plant makes its food in the leaves
- Understand the basic life cycle of plants
- Farms (Kindergarten)
 - Identify needs of farm animals: food; water; and space to live and grow
 - Describe how farm animal babies need to be fed and cared for by their parents or people
 - Match pictures and/or names of farm animal babies to their adult parents
- Seasons and Weather (Kindergarten)
 - Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
 - Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring, etc.)
- Taking Care of the Earth (Kindergarten)
 - Understand that humans, plants, and animals depend on Earth's land, water, and air to live
 - Explain why people have a special responsibility to take care of the earth
- Animals and Habitats (Grade 1)
 - Describe what a habitat is
 - Understand that living things live in habitats to which they are particularly suited
 - Identify the characteristics of specific habitats
 - Match specific plants and animals to their habitat
 - Explain how certain animals have adapted to their habitat

Westward Expansion

- Learn that the frontier shifted west and southwest as the country grew
- Describe what life was like for pioneers who headed west
- Identify boats, canals, and trains as new forms of transportation that increased the movement of people west
- Identify Robert Fulton as the developer of the steamboat
- Describe the importance of the steamboat
- Describe the importance of canals
- Identify the Erie Canal as the most famous of canals built during the 'Canal Era'
- Explain the advantages of rail travel
- Identify "iron horse" as the nickname given to the first trains in America
- Identify the Transcontinental Railroad as a link between East and West
- Identify the Oregon Trail as an arduous trail traversed by wagon trains
- Identify the Pony Express as a horseback mail delivery system
- Explain that western expansion meant displacement of Native Americans
- Recognize that the development of the railroad ushered in a new era of mass exodus of the Native Americans from their land
- Describe effect of diminishing buffalo on life of Plains Native Americans
- Explain that U.S. government forced Native Americans from their lands
- Identify the Trail of Tears as forced march of the Cherokee
- Identify Sequoyah as the developer of a writing system for the Cherokee language

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Native Americans (Kindergarten)
 - Explain that there are many tribes of Native Americans
 - Identify the environment in which the Sioux lived
 - Identify the Sioux as a nomadic tribe

- Describe the food, clothing, and shelter of the Sioux
- Understand the importance of the buffalo to the Sioux
- Identify the environment in which the Wampanoag lived
- Understand how the Wampanoag tribe lived
- Identify the Wampanoag as a settled tribe
- Describe the food, clothing, and shelter of the Wampanoag
- Understand that Native Americans still live in the U.S. today
- Columbus and The Pilgrims (Kindergarten)
 - Recall the year of Columbus's first voyage to America: 1492
 - Explain why Columbus called the land "India" and the inhabitants "Indians"
 - Identify why Europeans eventually thought Columbus had discovered a "New World"
 - Identify reasons why Pilgrims left England
 - Explain the significance of Plymouth Rock
- Colonial Towns and Townspeople (Kindergarten)
 - Describe some features of colonial towns, such as a town square, shops, and adjacent buildings
- Presidents and American Symbols (Kindergarten)
 - Describe the differences between a president and a king
 - Identify the American flag
 - Recognize Thomas Jefferson as the third President of the United States
- The Birth of Our Nation (Grade 1)
 - Identify the early English settlements on Roanoke Island and at Jamestown as colonies that were established before the Pilgrims landed at Plymouth Rock
 - Describe how the thirteen English colonies in America evolved from dependence on Great Britain to independence as a nation
 - Locate the thirteen original colonies
 - Describe the contributions of George Washington as Patriot, military commander, and first president
 - Identify Washington, D.C., as the nation's capital
 - Explain that the nation's capital, Washington, D.C., was named after George Washington
 - Explain the significance of The Fourth of July
 - Describe the roles of African Americans, Native Americans, and women during the evolution from thirteen English colonies in America to independence as a nation
- Frontier Explorers (Grade 1)
 - Locate the Appalachian Mountains on a map
 - Locate the Mississippi River on a map
 - Locate the Rocky Mountains on a map
 - Identify and locate the Louisiana Territory on a map
 - Understand the significance of the Louisiana Purchase
 - Explain the reasons that Lewis and Clark went on their expedition
 - Understand that while the territory acquired in the Louisiana Purchase had not been explored or settled by people who lived in other parts of the United States until Lewis and Clark went on their expedition, there were many, many Native American tribes already living there
 - Recall basic facts about Lewis and Clark's encounters with Native Americans
 - Explain why and how Sacagawea helped Lewis and Clark

The U.S. Civil War

- Describe slavery and the controversy over slavery in the United States
- Identify the Underground Railroad as a system of escape for slaves in the United States
- Describe the life and contributions of Harriet Tubman
- Differentiate between the North and South

- Differentiate between the Union and the Confederacy and the states associated with each
- Identify the people of the South as “Rebels” and those of the North as “Yankees”
- Describe why the Southern states seceded from the United States
- Define the difference between the Union and the Confederacy
- Describe the life and contributions of Abraham Lincoln
- Explain Abraham Lincoln’s role in keeping the Union together during the Civil War
- Identify Clara Barton as the “Angel of the Battlefield” and the founder of the American Red Cross
- Describe the work of the American Red Cross
- Recall that Robert E. Lee was the commander of the Confederate army
- Understand Lee’s reluctance to command the Union or the Confederate Army
- Recall that Ulysses S. Grant was the commander of the Union army
- Identify Abraham Lincoln as the author of the Emancipation Proclamation
- Explain the significance of the Emancipation Proclamation
- Identify the Civil War or the War Between the States as a war waged because of differences between the North and South
- Explain that the North’s victory united the North and South as one country and ended slavery
- Describe the life and contributions of Elijah McCoy
- Demonstrate familiarity with the poem “Harriet Tubman”
- Demonstrate familiarity with the poem “Lincoln”
- Demonstrate familiarity with the songs “Follow the Drinking Gourd” and “Swing Low, Sweet Chariot”
- Demonstrate familiarity with the song “Dixie”
- Demonstrate familiarity with the song “When Johnny Comes Marching Home”

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Presidents and American Symbols (Kindergarten)
Recognize Abraham Lincoln as an important President of the United States
Identify that Abraham Lincoln was known as “Honest Abe”
- The Birth of Our Nation (Grade 1)
Describe how the thirteen English colonies in America evolved from dependence on Great Britain to independence as a nation

Charlotte’s Web I

- Understand that stories are one type of fiction
- Understand that fiction comes from the author’s imagination
- Understand why some stories are called *classics*
- Identify character, plot, and setting as basic story elements
- Describe the characters, plot, and setting of *Charlotte’s Web*
- Describe some aspects of life on a farm
- Define and identify the elements of narration and dialogue
- Define and identify the element of description
- Define and identify the element of personification
- Identify words or phrases that appeal to the senses of sight, sound, taste, smell, or touch
- Understand that an author sometimes gives the reader hints of things to come
- Recall that spiders are not insects
- Recall the seasons and the order in which they occur
- Understand how seasons affect life on a farm
- Have a general understanding of spiders and their anatomy

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Stories (Kindergarten)
Listen to and then demonstrate familiarity with stories, including the ideas they express

- Farms (Kindergarten)
 - Sequence the seasonal rhythm of planting, growing, and harvesting
 - Identify buildings found on farms
 - Identify machines and tools of farming
 - Identify animals found on farms and the sounds they make
 - Identify needs of farm animals: food, water, and space to live and grow
- Seasons and Weather (Kindergarten)
 - Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
- Fables and Stories (Grade 1)
 - Identify and describe the characters, plot, and setting of a particular story

Charlotte's Web II

- Understand that stories are one type of fiction
- Understand that fiction comes from the author's imagination
- Describe the characters, plot (problems and solutions), and setting of *Charlotte's Web*
- Have a general understanding of orb spiders and their webs
- Have a general understanding of how crickets make a chirping sound
- Describe some aspects of life on a farm
- Understand how seasons affect life on a farm
- Define and identify the elements of narration and dialogue
- Define and identify the element of description
- Define and identify the element of personification
- Describe some aspects of a fair
- Identify words or phrases that appeal to the senses of sight, sound, taste, smell, or touch
- Describe changes in characters
- Understand that an author sometimes gives the reader hints of things to come

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Stories (Kindergarten)
 - Listen to and then demonstrate familiarity with stories, including the ideas they express
- Farms (Kindergarten)
 - Sequence the seasonal rhythm of planting, growing, and harvesting
 - Identify buildings found on farms
 - Identify machines and tools of farming
 - Identify animals found on farms and the sounds they make
 - Identify needs of farm animals: food, water, and space to live and grow
- Seasons and Weather (Kindergarten)
 - Name the four seasons in cyclical order, as experienced in the United States, and correctly name a few characteristics of each season
- Fables and Stories (Grade 1)
 - Identify and describe the characters, plot, and setting of a particular story

Immigration

- Explain the term immigrant
- Describe reasons immigrants leave their home countries to make a new home in the United States
- Explain why the United States was and is called the "land of opportunity"
- Identify the meaning of *e pluribus unum*
- Explain the significance of Ellis Island and the Statue of Liberty
- Describe how immigration has brought millions of newcomers to the United States
- Describe why large populations of immigrants settled in major cities such as New York, Chicago, Philadelphia, Detroit, Cleveland, Boston, and San Francisco
- Describe why some immigrants settled in the Midwest

- Understand that their ancestors may have been immigrants who helped make America the country that it is today
- Explain what it means to be a citizen of a country
- Identify ways that a person becomes an American citizen
- Identify that the government of the United States is based on the Constitution, the highest law of our land
- Identify James Madison, the “Father of the Constitution”
- Understand that government by the consent of the governed, American citizens: “We the People”
- Explain the basic functions of government (making and enforcing laws; settling disputes; protecting rights and liberties, etc.) by making analogies to familiar settings such as the family, the school, and the community
- Identify the Bill of Rights as a document amending the Constitution
- Describe the rights and responsibilities of an American citizen
- Demonstrate familiarity with the songs, “This Land is Your Land” and “The Star-Spangled Banner”

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Columbus and the Pilgrims (Kindergarten)
 - Identify the continents of North America, South America, Europe, Africa, and Asia
 - Describe the accomplishments of Christopher Columbus
 - Explain why Europeans eventually thought Columbus had discovered a “New World”
 - Identify reasons why Pilgrims left England
 - Describe the Pilgrims’ voyage on the Mayflower
- Presidents and American Symbols (Kindergarten)
 - Describe the differences between a president and a king
 - Identify Thomas Jefferson as the primary author of the Declaration of Independence
 - Describe the purpose of the Declaration of Independence as a statement of America’s liberty
 - Identify the Statue of Liberty
- Early American Civilizations (Grade 1)
 - Locate the continents of Asia and North America on a world map or globe
 - Understand that the first people in North America arrived by crossing a “land bridge” between Asia and North America
 - Understand that the Maya developed large cities or population centers in the rainforests of Mexico and Central America many, many years ago
- The Birth of Our Nation (Grade 1)
 - Identify “We hold these truths to be self-evident, that all men are created equal . . .” as a part of the Declaration of Independence
 - Explain the significance of The Fourth of July
 - Identify the U.S. flag, the Liberty Bell, and the bald eagle
 - Explain the significance of the flag, the Liberty Bell, and the bald eagle as U.S. symbols

Fighting for a Cause

- Explain that members of one (most powerful) group have tended to exclude members of other groups from certain rights
- Identify the causes that Susan B. Anthony fought for during her lifetime
- Describe the life and contributions of Susan B. Anthony
- Understand that fighting for the right to vote was an important cause for many women throughout the United States
- Understand that organizations and movements were created as women protested their inequality and unfair treatment
- Describe the life and contributions of Eleanor Roosevelt

- Identify the causes that Eleanor Roosevelt fought for during her lifetime
- Describe the early life of Marian Anderson
- Identify the causes Marian Anderson fought for during her lifetime
- Describe the later life of Marian Anderson
- Identify one cause that Eleanor Roosevelt fought for during her lifetime
- Describe the life and contributions of Mary McLeod Bethune
- Identify the causes that Mary McLeod Bethune fought for during her lifetime
- Identify the cause that Ruby Bridges fought for in her early life
- Describe the life and contributions of Jackie Robinson
- Identify the cause that Jackie Robinson fought for during his lifetime
- Describe the life and contributions of Rosa Parks
- Identify the causes that Rosa Parks fought for during her lifetime
- Understand that fighting for the rights of African Americans has been an important cause for many people throughout the United States
- Describe the life and contributions of Martin Luther King, Jr.
- Identify the causes that Martin Luther King, Jr. fought for during his lifetime
- Describe the life and contributions of Cesar Chavez
- Identify the causes that Cesar Chavez fought for during his lifetime

Builds on the following objectives targeted in Kindergarten and Grade 1:

- Presidents and American Symbols (Kindergarten)
 - Recognize the White House as the president's home
 - Describe Washington, D.C., as the city where the current president lives and where monuments of past presidents can be found
 - Describe the purpose of the Declaration of Independence as a statement of America's liberty
- The Birth of Our Nation (Grade 1)
 - Explain the significance of the Declaration of Independence
 - Identify "We hold these truths to be self-evident, that all men are created equal..." as part of the Declaration of Independence

Appendix D:

Core Knowledge Grade-by-Grade Resource Recommendations

RECOMMENDED ORDER AMOUNTS:

- **Titles for teachers:** one for each teacher, including resource teachers and librarians
- **Titles for students:** one for each student
- **Classroom resources:** one per classroom as noted

General

DVD: What Is Core Knowledge?

Cultural Literacy
The Schools We Need
The Knowledge Deficit
The Making of Americans
Reading Instruction: The Two Keys
Books to Build On
Dictionary of Cultural Literacy
First Dictionary of Cultural Literacy

Preschool

For Teachers

The Core Knowledge Sequence for Preschool–Grade 8
Core Knowledge Preschool Sequence and Teacher Handbook
What Your Preschooler Needs to Know (for parents)
Preschool Snapshot: Implementation & Observation Checklists
Core Knowledge Preschool Assessment Tool
Core Knowledge Preschool Assessment Kit
Core Knowledge Preschool Video
Core Knowledge Stop and Think Songbook CD
Preschool & K Music CD
A Joyful Noise
Preschool Daily Schedule Cards
The Knowledge Tree Preschool Kits*
Social Skills Posters
The Stop & Think Social Skills Program:
Teacher's Manual for Pre K–1
Stop and Think Parenting Book, with DVD (for parents)

For Students

What Your Preschooler Needs to Know:
Activity Book 1 for Ages 3–4
What Your Preschooler Needs to Know:
Activity Book 2 for Ages 4–5
Scholastic Preschool Classroom Library (one per classroom)*

Kindergarten

For Teachers

The Core Knowledge Sequence for Preschool–Grade 8
First Dictionary of Cultural Literacy
Core Knowledge Teacher Handbook, Grade K
Text Resources, Grade K
Art Prints, Grade K
Core Knowledge Day-by-Day Planner and Workbook, Grade K
What Your Kindergartner Needs to Know (for parents)
Teacher Edition of Pearson Learning
Core Knowledge History and Geography Resources*
Preschool & K Music CD
A Joyful Noise
Stop and Think Parenting Book, with DVD
Social Skills Electronic Books*

For Students

Listen My Children, Grade K
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Grade K Classroom Library (one per classroom)*

Grade 1

For Teachers

The Core Knowledge Sequence for Preschool–Grade 8
First Dictionary of Cultural Literacy
Core Knowledge Teacher Handbook, Grade 1
Text Resources, Grade 1
Art Prints, Grade 1
Core Knowledge Day-by-Day Planner and Workbook, Grade 1
What Your First Grader Needs to Know (for parents)
Teacher Edition of Pearson Learning
Core Knowledge History and Geography Resources*
Grades 1 & 2 Music CD set
A Joyful Noise
Stop and Think Parenting Book, with DVD
Social Skills Electronic Books*
Questar Curriculum-Referenced Tests*

For Students

Listen My Children, Grade 1
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Grade 1 Classroom Library (one per classroom)*

Grade 2

For Teachers

The Core Knowledge Sequence for Preschool–Grade 8
First Dictionary of Cultural Literacy
Core Knowledge Teacher Handbook, Grade 2
Text Resources, Grade 2
Art Prints, Grade 2
Core Knowledge Day-by-Day Planner and Workbook, Grade 2
What Your Second Grader Needs to Know (for parents)
Teacher Edition of Pearson Learning
Core Knowledge History and Geography Resources*
Grades 1 & 2 Music CD set
A Joyful Noise
Stop and Think Parenting Book, with DVD
Social Skills Electronic Books*
Questar Curriculum-Referenced Tests*

For Students

Listen My Children, Grade 2
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Grade 2 Classroom Library (one per classroom)*

Grade 3

For Teachers

The Core Knowledge Sequence for
Preschool–Grade 8
First Dictionary of Cultural Literacy
Core Knowledge Teacher Handbook, Grade 3
Text Resources, Grade 3
Art Prints, Grade 3
Core Knowledge Day-by-Day Planner and
Workbook, Grade 3
What Your Third Grader Needs to Know (for parents)
Teacher Edition of Pearson Learning
Core Knowledge History and Geography Resources*
Grades 3–5 Music CD set
A Joyful Noise
Stop and Think Parenting Book, with DVD
Social Skills Electronic Books*
Questar Curriculum-Referenced Tests*

For Students

Listen, My Children, Grade 3
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Grade 3 Classroom Library
(one per classroom)*

Grade 4

For Teachers

The Core Knowledge Sequence for
Preschool–Grade 8
First Dictionary of Cultural Literacy
Core Knowledge Teacher Handbook, Grade 4
Text Resources, Grade 4
Art Prints, Grade 4
Core Knowledge Day-by-Day Planner and
Workbook, Grade 4
What Your Fourth Grader Needs to Know
(for parents)
Core Classics: Robinson Crusoe, Sleepy
Hollow, Gulliver's Travels, Robin Hood,
King Arthur, and Treasure Island +
Teacher's Guides
Teacher Edition of Pearson Learning
Core Knowledge History and
Geography Resources*
Grades 3–5 Music CD Set
A Joyful Noise
Social Skills Electronic Books*
Questar Curriculum-Referenced Tests*

For Students

Listen, My Children, Grade 4
Core Classics: Robinson Crusoe, Sleepy Hollow,
Gulliver's Travels, Pollyanna, Robin Hood,
King Arthur, and Treasure Island
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Grade 4 Classroom Library
(one per classroom)*

Grade 5

For Teachers

The Core Knowledge Sequence for
Preschool–Grade 8
First Dictionary of Cultural Literacy
Dictionary of Cultural Literacy
Core Knowledge Teacher Handbook, Grade 5
Text Resources, Grade 5
Art Prints, Grade 5
Core Knowledge Day-by-Day Planner and
Workbook, Grade 5
What Your Fifth Grader Needs to Know (for parents)
Rats, Bulls, and Flying Machines + Teacher's Guide
Grace Abounding + Teacher's Kits
Core Classics: Sherlock Holmes, Don Quixote
+ Teacher's Guides
Core Classics Plus: Frederick Douglass +
Teacher's Guide
Teacher Edition of Pearson Learning
Core Knowledge History and Geography Resources*
Grades 3–5 Music CD Set
A Joyful Noise
Social Skills Electronic Books*
Questar Curriculum-Referenced Tests*

For Students

Listen My Children, Grade 5
Grace Abounding
Rats, Bulls, and Flying Machines
Core Classics: Sherlock Holmes, Don Quixote
Core Classics Plus: Frederick Douglass, Little Women
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Grade 5 Classroom Library
(one per classroom)*

Grade 6

For Teachers

The Core Knowledge Sequence for
Preschool–Grade 8
Dictionary of Cultural Literacy
Core Knowledge Day-by-Day Planner and
Workbook, Grade 6
What Your Sixth Grader Needs to Know (for parents)
Grace Abounding + Teacher's Kits
Teacher Edition of Pearson Learning
Core Knowledge History and
Geography Resources*
Grades 6 Music CD Set
A Joyful Noise
Mackin Middle School Resource Set*
Social Skills Electronic Books*

For Students

Realms of Gold, Volume I
Grace Abounding
Pearson Learning Core Knowledge History
and Geography Resources*
Scholastic Combined Grade 6–8 Classroom
Library (one per classroom)*

Grade 7

For Teachers

The Core Knowledge Sequence for
Preschool–Grade 8
Dictionary of Cultural Literacy
Core Knowledge Day-by-Day Planner and
Workbook, Grade 7
Grace Abounding + Teacher's Kits
Grade 7 Music CD Set
A Joyful Noise
Mackin Middle School Resource Set*
Social Skills Electronic Books*

For Students

Realms of Gold, Volume II
Grace Abounding
Scholastic Combined Grade 6–8 Classroom
Library (one per classroom)*

Grade 8

For Teachers

The Core Knowledge Sequence for
Preschool–Grade 8
Dictionary of Cultural Literacy
Core Knowledge Day-by-Day Planner and
Workbook, Grade 8
Grace Abounding + Teacher's Kits
Grade 8 Classical CD Set and Set A
Blues and Jazz CD Set and Set A
Musical Theater CD Set
Mozart Essential Works CD
A Joyful Noise
Mackin Middle School Resource Set*
Social Skills Electronic Books*

For Students

Realms of Gold, Volume III
Grace Abounding
Scholastic Combined Grade 6–8 Classroom
Library (one per classroom)

***Resources not sold by Core Knowledge.**
You can find information about these resources
on our website, www.coreknowledge.org

Core Knowledge at a Glance

	Preschool	Kindergarten	First Grade	Second Grade	Third Grade
Language Arts/English	I. Oral Language II. Nursery Rhymes, Poems, Finger-Plays, and Songs III. Storybook Reading and Storytelling IV. Emerging Literacy Skills	I. Listening and Speaking II. Reading III. Writing IV. Language Conventions V. Poetry VI. Fiction VII. Sayings and Phrases	I. Listening and Speaking II. Reading III. Writing IV. Language Conventions V. Poetry VI. Fiction VII. Sayings and Phrases	I. Listening and Speaking II. Reading III. Writing IV. Language Conventions V. Poetry VI. Fiction VII. Sayings and Phrases	I. Reading and Writing II. Poetry III. Fiction IV. Sayings and Phrases
History and Geography	Time: I. Vocabulary II. Measures of Time III. Passage of Time (Past, Present, Future) Space: I. Vocabulary II. Actual and Representational Space III. Simple Maps IV. Basic Geographic Concepts	World: I. Geography: Spatial Sense II. Overview of the Seven Continents American I. Geography II. Native American Peoples, Past and Present III. Early Exploration and Settlement IV. Presidents, Past and Present V. Symbols and Figures	World: I. Geography II. Early World Civilizations III. Modern Civilization and Culture: Mexico American I. Early People and Civilizations II. Early Exploration and Settlement III. From Colonies to Independence: The American Revolution IV. Early Exploration of American West V. Symbols and Figures	World: I. Geography II. Early Asian Civilizations III. Modern Japanese Civilization IV. The Ancient Greek Civilization American I. American Government: The Constitution II. The War of 1812 III. Westward Expansion IV. The Civil War V. Immigration and Citizenship VI. Fighting for a Cause VII. Geography of the Americas VIII. Symbols and Figures	World: I. World Geography II. The Ancient Roman Civilization III. The Vikings American I. The Earliest Americans II. Early Exploration of North America III. The Thirteen Colonies: Life and Times Before the Revolution
Visual Arts	I. Attention to visual detail II. Creating Art III. Looking and Talking about Art	I. Elements of Art II. Sculpture III. Looking at and Talking About Art	I. Art from Long Ago II. Elements of Art III. Kinds of Pictures: Portrait and Still Life	I. Elements of Art II. Sculpture III. Kinds of Pictures: Landscapes IV. Abstract Art V. Architecture	I. Elements of Art II. American Indian Art III. Art of Ancient Rome and Byzantine Civilization
Music	I. Attention to Differences in Sound II. Imitate and Produce Sounds III. Listen and Sing IV. Listen and Move	I. Elements of Music II. Listening and Understanding III. Songs	I. Elements of Music II. Listening and Understanding (Composers; Orchestra; Opera; Ballet; Jazz) III. Songs	I. Elements of Music II. Listening and Understanding (Orchestra; Keyboards; Composers) III. Songs	I. Elements of Music II. Listening and Understanding (Orchestra; Composers) III. Songs
Mathematics	I. Patterns and Classification II. Geometry III. Measurement IV. Numbers and Number Sense V. Addition and Subtraction with Concrete Objects VI. Money	I. Patterns and Classification II. Numbers and Number Sense III. Money IV. Computation V. Measurement VI. Geometry	I. Patterns and Classification II. Numbers and Number Sense III. Money IV. Computation V. Measurement VI. Geometry	I. Numbers and Number Sense II. Fractions III. Money IV. Computation V. Measurement VI. Geometry	I. Numbers and Number Sense II. Fractions and Decimals III. Money IV. Computation V. Measurement VI. Geometry
Science	I. Human Characteristics, Needs and Development II. Animal Characteristics, Needs and Development III. Plant Characteristics, Needs and Growth IV. Physical Elements (Water, Air, Light) V. Introduction to Magnetism VI. Seasons and Weather VII. Taking Care of the Earth VIII. Tools	I. Plants and Plant Growth II. Animals and Their Needs III. Human Body (Five Senses) IV. Introduction to Magnetism V. Seasons and Weather VI. Taking Care of the Earth VII. Science Biographies	I. Living Things and Their Environments II. Human Body (Body Systems) III. Matter IV. Properties of Matter: Measurement V. Introduction to Electricity VI. Astronomy VII. The Earth VIII. Science Biographies	I. Cycles in Nature (Seasonal Cycles; Life Cycles; Water Cycle) II. Insects III. Human Body (Cells; Digestive and Excretory Systems) IV. Magnetism V. Simple Machines VI. Science Biographies	I. Introduction to Classification of Animals II. Human Body (Muscular, Skeletal, and Nervous Systems; Vision and Hearing) III. Light and Optics IV. Sound V. Ecology VI. Astronomy VII. Science Biographies

	Fourth Grade	Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade
Language Arts/English	I. Writing, Grammar, and Usage II. Poetry III. Fiction IV. Speeches V. Sayings and Phrases	I. Writing, Grammar, and Usage II. Poetry III. Fiction and Drama IV. Speeches V. Sayings and Phrases	I. Writing, Grammar, and Usage II. Poetry III. Fiction and Drama IV. Sayings and Phrases	I. Writing, Grammar, and Usage II. Poetry III. Fiction, Nonfiction, and Drama IV. Foreign Phrases Commonly Used in English	I. Writing, Grammar, and Usage II. Poetry III. Fiction, Nonfiction, and Drama IV. Foreign Phrases Commonly Used in English
History and Geography	World: I. World Geography (Spatial Sense; Mountains) II. Europe in Middle Ages III. The Spread of Islam and the "Holy Wars" IV. Early and Medieval African Kingdoms V. China: Dynasties and Conquerors American I. The American Revolution II. Making a Constitutional Government III. Early Presidents and Politics IV. Reformers V. Symbols and Figures	World: I. World Geography (Spatial Sense; Lakes) II. Early American Civilizations III. European Exploration, Trade, and the Clash of Cultures IV. The Renaissance and the Reformation V. England from the Golden Age to the Glorious Revolution VI. Russia: Early Growth and Expansion VII. Feudal Japan American I. Westward Expansion II. The Civil War: Causes, Conflicts, Consequences III. Native Americans: Cultures and Conflicts IV. U.S. Geography	World: I. World Geography (Spatial Sense; Deserts) II. Lasting Ideas from Ancient Civilizations III. The Enlightenment IV. The French Revolution V. Romanticism VI. Industrialism, Capitalism, and Socialism VII. Latin American Independence Movements American I. Immigration, Industrialization, and Urbanization II. Reform	I. America Becomes a World Power II. World War I: "The Great War," 1914–1918 III. Russian Revolution IV. America from the Twenties to the New Deal V. World War II VI. Geography of United States	I. The Decline of European Colonialism II. The Cold War III. The Civil Rights Movement IV. The Vietnam War and the Rise of Social Activism V. The Middle East and Oil Politics VI. The End of the Cold War: The Expansion of Democracy and Continuing Challenges VII. Civics: The Constitution—Principles and Structure of American Democracy VIII. Geography of Canada and Mexico
Visual Arts	I. Art of the Middle Ages in Europe II. Islamic Art and Architecture III. Art of Africa IV. Art of China V. Art of a New Nation: The United States	I. Art of the Renaissance II. American Art: Nineteenth-Century United States III. Art of Japan	I. Art History: Periods and Schools (Classical; Gothic; Renaissance; Baroque; Rococo; Neoclassical; Romantic; Realistic)	I. Art History: Period and Schools (Impressionism; Post-Impressionism; Expressionism and Abstraction; Modern American Painting)	I. Art History: Periods and Schools (Painting Since World War II; Photography; 20th-Century Sculpture) II. Architecture Since the Industrial Revolution
Music	I. Elements of Music II. Listening and Understanding (Orchestra; Vocal Ranges; Composers) III. Songs	I. Elements of Music II. Listening and Understanding (Composers; Connections) III. American Musical Traditions (Spirituals) IV. Songs	I. Elements of Music II. Classical Music: From Baroque to Romantic (Bach, Handel, Haydn, Mozart, Beethoven, Schubert, Chopin, Schumann)	I. Elements of Music II. Classical Music: Romantics and Nationalists (Brahms, Berlioz, Liszt, Wagner, Dvorak, Grieg, Tchaikovsky) III. American Musical Traditions (Blues and Jazz)	I. Elements of Music II. Non-Western Music III. Classical Music: Nationalists and Moderns IV. Vocal Music (Opera; American Musical Theater)
Mathematics	I. Numbers and Number Sense II. Fractions and Decimals III. Money IV. Computation V. Measurement VI. Geometry	I. Numbers and Number Sense II. Ratio and Percent III. Fractions and Decimals IV. Computation V. Measurement VI. Geometry VII. Probability and Statistics VIII. Pre-Algebra	I. Numbers and Number Sense II. Ratio, Percent, and Proportion III. Computation IV. Measurement V. Geometry VI. Probability and Statistics VII. Pre-Algebra	I. Pre-Algebra (Properties of the Real Numbers; Polynomial Arithmetic; Equivalent Equations and Inequalities; Integer Exponents) II. Geometry (Three-Dimensional Objects; Angle Pairs; Triangles; Measurement) III. Probability and Statistics	I. Algebra (Properties of the Real Numbers; Relations, Functions, and Graphs; Linear Equations and Functions; Arithmetic of Rational Expression; Quadratic Equations and Functions) II. Geometry (Analytic Geometry; Introduction to Trigonometry; Triangles and proofs)
Science	I. Human Body (Circulatory and Respiratory Systems) II. Chemistry: Basic Terms and Concepts III. Electricity IV. Geology: The Earth and Its Changes V. Meteorology VI. Science Biographies	I. Classifying Living Things II. Cells: Structures and Processes III. Plant Structures and Processes IV. Life Cycles and Reproduction V. Human Body (Endocrine and Reproductive Systems) VI. Chemistry: Matter and Change VII. Science Biographies	I. Plate Tectonics II. Oceans III. Astronomy: Gravity, Stars, and Galaxies IV. Energy, Heat, and Energy Transfer V. The Human Body: Lymphatic and Immune Systems VI. Science Biographies	I. Atomic Structure II. Chemical Bonds and Reactions III. Cell Division and Genetics IV. History of the Earth and Life Forms V. Evolution VI. Science Biographies	I. Physics II. Electricity and Magnetism III. Electromagnetic Radiation and Light IV. Sound Waves V. Chemistry of Food and Respiration VI. Science Biographies

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Listening and Speaking		
A. Classroom Discussion		
Participate in age appropriate activities involving listening and speaking.	SLK.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.	
Speak clearly with volume appropriate to the setting.	SLK.6 Speak audibly and express thoughts, feelings, and ideas clearly.	
Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say “excuse me” or “please,” etc.	SLK.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).	
Ask questions to clarify conversations, directions, exercises, and/or classroom routines.	SLK.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	
Carry on and participate in a conversation over four to five turns, staying on topic, initiating comments or responding to a partner’s comments, with either an adult or another child of the same age.	WK.5 With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. SLK.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. b. Continue a conversation through multiple exchanges	
Identify and express physical sensations, mental states, and emotions of self and others.	SLK.6 Speak audibly and express thoughts, feelings, and ideas clearly.	
Understand and use language to express spatial and temporal relationships (up, down, first, last, before, after, etc.).	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. e. Use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with).	
Understand and use narrative language to describe people, places, things, locations, events, actions.	SLK.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	
Understand and use common sayings and phrases such as “Better safe than sorry” and “Look before you leap” (see page 11).	LK.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts.	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
B. Presentation of Ideas and Information		
Follow multi-step, oral directions.	SLK.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).	
Give simple directions.	WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. SLK.6 Speak audibly and express thoughts, feelings, and ideas clearly.	
Provide simple explanations.	WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	
Recite a nursery rhyme, poem or song independently		
C. Comprehension and Discussion of Read-Alouds—All Texts		
Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text, and poems.	RLK.10 Actively engage in group reading activities with purpose and understanding. RIK.10 Actively engage in group reading activities with purpose and understanding.	
Grasping Specific Details and Key Ideas		
Describe illustrations.	RLK.7 With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). RIK.7 With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	
Sequence four to six pictures illustrating events in a read-aloud.	RLK.2 With prompting and support, retell familiar stories, including key details. RIK.2 With prompting and support, identify the main topic and retell key details of a text.	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc.	RLK.1 With prompting and support, ask and answer questions about key details in a text. SLK.2 Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	
Retell key details.	RLK.1 With prompting and support, ask and answer questions about key details in a text. RLK.2 With prompting and support, retell familiar stories, including key details. RIK.1 With prompting and support, ask and answer questions about key details in a text. RIK.2 With prompting and support, identify the main topic and retell key details of a text. RIK.8 With prompting and support, identify the reasons an author gives to support points in a text. WK.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	
Ask questions to clarify information in a read-aloud.	RIK.1 With prompting and support, ask and answer questions about key details in a text. SLK.2 Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.	
Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in a read-aloud.	RLK.2 With prompting and support, retell familiar stories, including key details. RLK.3 With prompting and support, identify characters, settings, and major events in a story. WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. SLK.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	b. Use frequently occurring nouns and verbs.	
Observing Craft and Structure		
Understand and use words and phrases heard in read-alouds.	<p>RLK.4 Ask and answer questions about unknown words in a text.</p> <p>RIK.4 With prompting and support, ask and answer questions about unknown words in a text.</p> <p>LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>b. Use frequently occurring nouns and verbs.</p> <p>LK.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.</p> <p>a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).</p> <p>b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word.</p> <p>LK.5 With guidance and support from adults, explore word relationships and nuances in word meanings.</p> <p>b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).</p> <p>d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings.</p>	
Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.	<p>RLK.9 With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.</p> <p>RIK.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).</p>	
Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.	<p>RIK.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	LK.5 With guidance and support from adults, explore word relationships and nuances in word meanings. c. Identify real-life connections between words and their use (e.g., note places at school that are colorful).	
Integrating Information and Evaluating Evidence		
Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.	RLK.10 Actively engage in group reading activities with purpose and understanding. RIK.10 Actively engage in group reading activities with purpose and understanding.	
Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.	RLK.1 With prompting and support, ask and answer questions about key details in a text. RLK.2 With prompting and support, retell familiar stories, including key details. RLK.3 With prompting and support, identify characters, settings, and major events in a story. RLK.7 With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). RIK.1 With prompting and support, ask and answer questions about key details in a text. RIK.2 With prompting and support, identify the main topic and retell key details of a text. RIK.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. RIK.7 With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	
Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions.	RLK.10 Actively engage in group reading activities with purpose and understanding. RIK.10 Actively engage in group reading activities with purpose and understanding.	
Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering “why” questions that require	RIK.1 With prompting and support, ask and answer questions about key details in a text. WK.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
recognizing cause/effect relationships.	reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is...).	
Identify who is telling a story or providing information in a text.		
D. Comprehension and Discussion of Read-Alouds Fiction, Drama, and Poetry		
Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	RLK.2 With prompting and support, retell familiar stories, including key details. RLK.3 With prompting and support, identify characters, settings, and major events in a story.	
Change some story events and provide a different story ending.	WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.	
Create and tell an original story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.	
**Draw pictures and/or dictate ideas to represent details or information from a read-aloud (L.K.21)	WK.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is...). WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. SLK.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.	
Distinguish fantasy from realistic text in a story	RLK.5 Recognize common types of text (e.g., storybooks, poems).	
**Evaluate and select read-alouds, books, or poems on the basis of personal choice for rereading (L.K.23)	RLK.10 Actively engage in group reading activities with purpose and understanding. RIK.10 Actively engage in group reading activities with	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	purpose and understanding.	
Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.	<p>RLK.6 With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.</p> <p>RIK.6 Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.</p>	
E. Comprehension and discussion of Read-Alouds – Non fiction and Informational Text		
Retell important facts and information from a nonfiction read-aloud.	<p>RLK.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>RLK.2 With prompting and support, retell familiar stories, including key details.</p> <p>RIK.2 With prompting and support, identify the main topic and retell key details of a text.</p> <p>RIK.8 With prompting and support, identify the reasons an author gives to support points in a text.</p> <p>WK.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p>	
With assistance, categorize and organize facts and information within a given topic.	<p>RIK.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>WK.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is...).</p> <p>WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p> <p>WK.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> <p>LK.5 With guidance and support from adults, explore word relationships and nuances in word meanings.</p> <p>a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.</p>	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
With assistance, create and interpret timelines and lifelines related to read-alouds.	RLK.2 With prompting and support, retell familiar stories, including key details. RLK.3 With prompting and support, identify characters, settings, and major events in a story. RIK.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	
Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.	RIK.7 With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).	
II. Reading		
A. Print Awareness		
Demonstrate understanding that what is said can be written and that the writing system is a way of writing down sounds.	RFK.1 Demonstrate understanding of the organization and basic features of print.	
Demonstrate understanding of directionality (left to right, return sweep, top to bottom, front to back).	RFK.1 Demonstrate understanding of the organization and basic features of print. a. Follow words from left to right, top to bottom, and page by page.	
Identify the parts of books and function of each part (front cover, back cover, title page, table of contents).	RIK.5 Identify the front cover, back cover, and title page of a book. RFK.1 Demonstrate understanding of the organization and basic features of print.	
Demonstrate correct book orientation by holding book correctly and turning pages. Recognize that sentences in print are made up of separate words.	RFK.1 Demonstrate understanding of the organization and basic features of print.	
Understand that words are separated by spaces.	RFK.1 Demonstrate understanding of the organization and basic features of print. c. Understand that words are separated by spaces in print.	
Distinguish letters, words, sentences, and stories. Demonstrate understanding of basic print conventions by tracking and following print word for word when listening to text read aloud.	RFK.1 Demonstrate understanding of the organization and basic features of print.	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Demonstrate understanding that the sequence of letters in a written word represents the sequence of sounds in the spoken word.	RFK.1 Demonstrate understanding of the organization and basic features of print. b. Recognize that spoken words are represented in written language by specific sequences of letters.	
Recognize and name the 26 letters of the alphabet in both their upper-case and lower-case forms.	RFK.1 Demonstrate understanding of the organization and basic features of print. d. Recognize and name all upper- and lowercase letters of the alphabet.	
Say the letters of the alphabet in order, either in song or recitation.		
B. Phonological and Phonemic Awareness		
Identify environmental sounds, e.g., keys jingling, scissors cutting, clapping.		
Identify whether pairs of environmental sounds are the same or different.		
Count the number of environmental sounds heard, e.g., clapping, rhythm band instruments.		
Orally segment sentences into discrete words. Demonstrate understanding that words are made up of sequences of sounds. Demonstrate understanding that vowel sounds are produced with the mouth open and airflow unobstructed, whereas consonant sounds involve closing parts of the mouth and blocking the air flow. Given a pair of spoken words, select the one that is longer (i.e., contains more phonemes). In riddle games, supply words that begin with a target phoneme.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	
Indicate whether a target phoneme is or is not present in the initial/medial/final position of a spoken word, e.g., hear /m/ at the beginning of mat and /g/ at the end of bag. Listen to one-syllable words and tell the beginning or ending sounds, e.g., given dog, identify initial /d/ or final /g/.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVCs ending with /l/, /r/, or /x/.)	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Recognize the same phoneme in different spoken words, e.g., /b/ in ball, bug, and big.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.	
Identify whether pairs of phonemes are the same or different, including pairs that differ only in voicing, e.g., /b/ and /p/.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	
Orally blend two to three sounds to form a word, e.g., given the sounds /k/.../a/... /t/, blend to make cat.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). c. Blend and segment onsets and rimes of single-syllable spoken words.	
Segment a spoken word into phonemes, e.g., given bat, produce the segments/b//a//t/.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). c. Blend and segment onsets and rimes of single-syllable spoken words.	
Given a spoken word, produce another word that rhymes, e.g., given hit, supply bit or mitt.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Recognize and produce rhyming words.	
Identify the number of syllables in a spoken word.	RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). b. Count, pronounce, blend, and segment syllables in spoken words.	
C. Phonics: Decoding and Encoding		
Demonstrate understanding that a systematic, predictable relationship exists between written letters (graphemes) and spoken sounds (phonemes).	RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words. a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sound for each consonant.	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Blend individual phonemes to pronounce printed words.</p> <p>Understand that sometimes two or more printed letters stand for a single sound.</p> <p>Read and write any CVC word, e.g., sit or cat.</p> <p>Read and write one-syllable words containing common initial consonant clusters such as tr-, fl-, dr- and sp- and consonant digraphs such as ch-, sh-, th-, etc.</p>	<p>RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p>	
<p>Read and write words containing separated vowel graphemes, such as, late, bite, note, cute.</p>	<p>RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.</p>	
<p>Read tricky spellings that can be sounded two ways, e.g., the letter 's' sounded /s/ as in cats and /z/ as in dogs.</p>	<p>RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p>	
<p>Read and write chains of one-syllable words in which one sound is added, substituted, or omitted, e.g., read at > cat > bat > bad > bid.</p>	<p>RFK.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).</p> <p>e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.</p> <p>RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.</p>	
<p>Read at least 15 words generally identified as very high frequency words.</p>	<p>RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>c. Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).</p>	
Consonant Sounds and Spellings Taught in Kindergarten		

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>/b/ spelled 'b' as in boy, 'bb', as in tubby /d/ spelled 'd' as in dog, 'dd' as in madder /f/ spelled 'f' as in fun, 'ff' as in stuff /g/ spelled 'g' as in get, 'gg' as in egg /h/ spelled 'h' as in him /j/ spelled 'j' as in jump /k/ spelled 'c' as in cat, 'k' as in kitten, 'ck' as in sick, 'cc' as in moccasin /l/ spelled 'l' as in lip, 'll' as in sell /m/ spelled 'm' as in mad, 'mm' as in hammer /n/ spelled 'n' as in net, 'nn' as in funny /p/ spelled 'p' as in pet, 'pp' as in happy /r/ spelled 'r' as in red, 'rr' as in earring /s/ spelled 's' as in sit, 'ss' as in dress /t/ spelled 't' as in top, 'tt' as in butter /v/ spelled 'v' as in vet /w/ spelled 'w' as in wet /x/ spelled 'x' as in tax /y/ spelled 'y' as in yes /z/ spelled 'z' as in zip, 'zz' as in buzz, 's' as in dogs /ch/ spelled 'ch' as in chop /sh/ spelled 'sh' as in ship /th/ spelled 'th' as in thin /th/ spelled 'th' as in then /qu/ spelled 'qu' as in quick /ng/ spelled 'ng' as in sing, 'n' as in pink</p>	<p>RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sound for each consonant.</p>	
Vowel Sounds and Spellings Taught in Kindergarten		

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
/a/ spelled 'a' as in cat /e/ spelled 'e' as in get /i/ spelled 'i' as in hit /o/ spelled 'o' as in hot /u/ spelled 'u' as in but /ae/ spelled 'a_e' as in cake /ee/ spelled 'ee' as in bee /ie/ spelled 'i_e' as in bike /oe/ spelled 'o_e' as in note /ue/ spelled 'u_e' as in cute /er/ spelled 'er' as in her. /ar/ spelled 'ar' as in car /or/ spelled 'or' as in for	RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words. b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.	
D. Oral Reading and Fluency		
Read decodable stories that incorporate the specific code knowledge that has been taught.	RLK.10 Actively engage in group reading activities with purpose and understanding. RIK.10 Actively engage in group reading activities with purpose and understanding. RFK.3 Know and apply grade-level phonics and word analysis skills in decoding words. c. Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does). RFK.4 Read emergent-reader texts with purpose and understanding.	
Use phonics skills in conjunction with context to confirm or self-correct word recognition and understanding, rereading as necessary.	RLK.4 Ask and answer questions about unknown words in a text. RIK.4 With prompting and support, ask and answer questions about unknown words in a text. RFK.4 Read emergent-reader texts with purpose and understanding. LK.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). LK.4 Determine or clarify the meaning of unknown and	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	multiple-meaning words and phrases based on kindergarten reading and content. b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word.	
Demonstrate understanding of and use commas and end punctuation while reading orally.	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	
Read aloud, alone, or with a partner at least 15 minutes each day.	RFK.4 Read emergent-reader texts with purpose and understanding.	
E. Reading Comprehension – All Texts		
Demonstrate understanding of simple decodable text after reading independently.	RFK.4 Read emergent-reader texts with purpose and understanding.	
Grasping Specific Details and Key Ideas		
Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, etc.) about a text that has been read independently.	RLK.1 With prompting and support, ask and answer questions about key details in a text. RIK.1 With prompting and support, ask and answer questions about key details in a text.	
Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	RLK.2 With prompting and support, retell familiar stories, including key details. RLK.3 With prompting and support, identify characters, settings, and major events in a story.	
Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.	RLK.2 With prompting and support, retell familiar stories, including key details. RLK.3 With prompting and support, identify characters, settings, and major events in a story. WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. SLK.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. LK.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. b. Use frequently occurring nouns and verbs.	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Observing Craft and Structure		
Understand and use words and phrases from a text that has been read independently.	<p>RLK.4 Ask and answer questions about unknown words in a text.</p> <p>RIK.4 With prompting and support, ask and answer questions about unknown words in a text.</p> <p>LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>b. Use frequently occurring nouns and verbs.</p> <p>LK.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.</p> <p>a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).</p> <p>b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word.</p> <p>LK.5 With guidance and support from adults, explore word relationships and nuances in word meanings.</p> <p>b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).</p> <p>d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings.</p>	
Integrating Information and Evaluating Evidence		
Prior to reading, identify what they know and have learned that may be related to the specific story or topic to be read.	<p>RLK.10 Actively engage in group reading activities with purpose and understanding.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	
Use pictures accompanying the written text to check and support understanding.	<p>RLK.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>RLK.2 With prompting and support, retell familiar stories, including key details.</p> <p>RLK.3 With prompting and support, identify characters, settings, and major events in a story.</p> <p>RLK.7 With prompting and support, describe the</p>	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).</p> <p>RIK.1 With prompting and support, ask and answer questions about key details in a text.</p> <p>RIK.2 With prompting and support, identify the main topic and retell key details of a text.</p> <p>RIK.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RIK.7 With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).</p>	
Make predictions prior to and while reading, based on the title, pictures, and/or text read thus far and then compare the actual outcomes to predictions.	<p>RLK.10 Actively engage in group reading activities with purpose and understanding.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	
Identify who is telling a story or providing information in a text.	RLK.6 With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	
III. Writing		
Draw pictures to represent a preference or opinion.	WK.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is...).	
Write narratives, informative and explanatory texts, and offer an opinion through shared writing exercises.	<p>WK.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is...).</p> <p>WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p> <p>WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.</p>	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>WK.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including collaboration with peers.</p> <p>WK.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them.)</p>	
With assistance, add details to writing.	<p>WK.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is...).</p> <p>WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p> <p>WK.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.</p> <p>WK.5 With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.</p>	
Create a title or caption to accompany a picture and/or shared writing.	<p>WK.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p> <p>LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>f. Produce and expand complete sentences in shared language activities.</p>	
IV. Language Conventions		
Form letters, words, phrases and sentences to communicate thoughts and ideas.	<p>LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Print many upper- and lowercase letters</p> <p>LK.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>c. Write a letter or letters for most consonant and</p>	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	short-vowel sounds (phonemes).	
Apply basic spelling conventions. Use basic capitalization and punctuation in sentences to convey meaning.	LK.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
A. Handwriting and Spelling		
Hold a pencil with a pincer grasp and make marks on paper.		
Trace, copy, and print from memory the 26 letters of the alphabet accurately in both their upper-case and lower-case forms.	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print many upper- and lowercase letters	
Write own name.		
Write from left to right, leaving spaces between words, and top to bottom using return sweep.		
Begin to write phonemically plausible spellings for words that cannot be spelled correctly with current code knowledge, e.g., write bote for boat, sum for some, hunee for honey.	LK.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.	
Write words, phrases, and sentences from dictation, applying phonics knowledge.	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. f. Produce and expand complete sentences in shared language activities. LK.2 Produce and expand complete sentences in shared language activities. d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.	
B. Parts of Speech and Sentence Structure		
Use and understand question words, i.e., what, where, when, who, how.	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. d. Understand and use question words (interrogatives) (e.g., who, what, where, when,	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	why, how).	
Form regular plural nouns by adding 's' or 'es', i.e., dog, dogs, wish, wishes.	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes).	
Demonstrate understanding of frequently occurring prepositions, i.e., to/from, in/out, on/off.	LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. e. Use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with).	
Produce and expand complete sentences orally and in shared writing exercises.	WK.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them.) LK.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. f. Produce and expand complete sentences in shared language activities.	
C. Capitalization and Punctuation		
Capitalize the first word in a sentence, the pronoun I.	LK.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize the first word in a sentence and the pronoun I.	
Identify and use end punctuation, including periods, question marks, and exclamation points.	LK.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Recognize and name end punctuation.	
V. Poetry		
A. Mother Goose and other Traditional Poems*		

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p> A Diller, A Dollar Baa, Baa, Black Sheep Diddle, Diddle, Dumpling Early to Bed Georgie Porgie Hey Diddle Diddle Hickory, Dickory, Dock Hot Cross Buns Humpty Dumpty It's Raining, It's Pouring Jack and Jill Jack Be Nimble Jack Sprat Ladybug, Ladybug Little Bo Peep Little Boy Blue Little Jack Horner Little Miss Muffet London Bridge Is Falling Down Mary, Mary, Quite Contrary Old King Cole Old Mother Hubbard One, Two, Buckle My Shoe Pat-a-Cake Rain, Rain, Go Away Ride a Cock-Horse Ring Around the Rosey Rock-a-bye, Baby Roses Are Red See-Saw, Margery Daw Simple Simon Sing a Song of Sixpence Star Light, Star Bright There Was a Little Girl There Was an Old Woman Who Lived in a Shoe This Little Pig Went to Market Three Blind Mice </p>	<p> RLK.10 Actively engage in group reading activities with purpose and understanding. RIK.10 Actively engage in group reading activities with purpose and understanding. </p>	

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
B. Other Poems, Old and New*		
<p>April Rain Song (Langston Hughes)</p> <p>Happy Thought (Robert Louis Stevenson)</p> <p>I Do Not Mind You, Winter Wind (Jack Prelutsky)</p> <p>Mary Had a Little Lamb (Sara Josepha Hale)</p> <p>The More It Snows (A. A. Milne)</p> <p>My Nose (Dorothy Aldis)</p> <p>Rain (Robert Louis Stevenson)</p> <p>Three Little Kittens (Eliza Lee Follen)</p> <p>Time to Rise (Robert Louis Stevenson)</p> <p>Tommy (Gwendolyn Brooks)</p> <p>Twinkle Twinkle Little Star (Jane Taylor)</p>	<p>RLK.10 Actively engage in group reading activities with purpose and understanding.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	
VI. Fiction		
A. Stories*		

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>The Bremen Town Musicians (Brothers Grimm)</p> <p>Chicken Little (also known as “Henny-Penny”)</p> <p>Cinderella (Charles Perrault)</p> <p>Goldilocks and the Three Bears</p> <p>How Many Spots Does a Leopard Have? (African folktale)</p> <p>King Midas and the Golden Touch</p> <p>The Legend of Jumping Mouse (Native American: Northern Plains legend)</p> <p>The Little Red Hen</p> <p>Little Red Riding Hood</p> <p>Momotaro: Peach Boy (Japanese folktale)</p> <p>Snow White and the Seven Dwarfs</p> <p>The Three Billy Goats Gruff</p> <p>The Three Little Pigs</p> <p>A Tug of War (African folktale)</p> <p>The Ugly Duckling (Hans Christian Andersen)</p> <p>The Velveteen Rabbit (Margery Williams)</p> <p>selections from Winnie-the-Pooh (A. A. Milne)</p> <p>The Wolf and the Kids (Brothers Grimm)</p>	<p>RLK.10 Actively engage in group reading activities with purpose and understanding.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	
B. Aesop’s Fables*		
<p>The Lion and the Mouse</p> <p>The Grasshopper and the Ants</p> <p>The Dog and His Shadow</p> <p>The Hare and the Tortoise</p>	<p>RLK.10 Actively engage in group reading activities with purpose and understanding.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	
C. American Folk Heroes and Tall Tales*		
<p>Johnny Appleseed</p> <p>Casey Jones</p>	<p>RLK.10 Actively engage in group reading activities with purpose and understanding.</p> <p>RIK.10 Actively engage in group reading activities with purpose and understanding.</p>	
D. Literary Terms		
<p>author</p> <p>illustrator</p>		

Core Knowledge Sequence Kindergarten	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
VII. Sayings and Phrases		
<p>A dog is man's best friend. April showers bring May flowers. Better safe than sorry. Do unto others as you would have them do unto you. The early bird gets the worm. Great oaks from little acorns grow. Look before you leap. A place for everything and everything in its place. Practice makes perfect. [It's] raining cats and dogs. Where there's a will there's a way.</p>	<p>LK.5 With guidance and support from adults, explore word relationships and nuances in word meanings. LK.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts.</p>	
<p>*Reading: Text complexity and the growth of comprehension</p> <p>The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by grade "staircase" of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.</p> <p>(Common Core State Standards for ENGLISH LANGUAGE ARTS & Literacy in History/Social Studies, Science, and Technical Subjects, p. 8)</p>		
<p>**The Core Knowledge Language Arts Program: Grade K Language Art Objectives for Listening and Learning</p>		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
A. Classroom Discussion		
Participate in age appropriate activities involving listening and speaking.	SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.	
Speak clearly with volume appropriate to the setting. Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say “excuse me” or “please,” etc.	SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).	
Ask questions to clarify conversations, directions, exercises, and/or classroom routines.	SL1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media. SL1.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	
Carry on and participate in a conversation over at least six turns, staying on topic, initiating comments or responding to a partner’s comments, with either an adult or another child of the same age.	W1.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. b. Build on others’ talk in conversations by responding to the comments of others through multiple exchanges.	
Identify and express physical sensations, mental states, and emotions of self and others.	SL1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	
Understand and use language to express spatial and temporal relationships (up, down, first, last, before, after, etc.).	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. i. Use frequently occurring prepositions (e.g., during, beyond, toward).	
Understand and use narrative language to describe people, places, things, locations, events, actions.	RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. RL1.3 Describe characters, settings, and major events in	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	a story, using key details. SL1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	
Understand and use common sayings and phrases such as “Hit the nail on the head” and “Let the cat out of the bag” (see page 34).	L1.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., I named my hamster Nibblet because she nibbles too much because she likes that).	
B. Presentation of Ideas and Information		
Follow multi-step, oral directions.	SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).	
Give simple directions.	W1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure. SL1.6 Produce complete sentences when appropriate to task and situation.	
Provide simple explanations.	RI1.1 Ask and answer questions about key details in a text. RI1.3 Describe characters, settings, and major events in a story, using key details. RI1.1 Ask and answer questions about key details in a text. RI1.2 Identify the main topic and retell key details of a text. RI1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text. RI1.7 Use illustrations and details in a text to describe its key ideas. RI1.8 Identify the reasons an author gives to support points in a text. W1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>W1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.</p> <p>W1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> <p>SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>SL1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.</p> <p>SL1.6 Produce complete sentences when appropriate to task and situation.</p>	
Recite a nursery rhyme, poem or song independently, using appropriate eye contact, volume and clear enunciation.	<p>RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>RL1.3 Describe characters, settings, and major events in a story, using key details.</p>	
**Share writing with others (L.1.29).	<p>W1.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.</p> <p>W1.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p>SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p>	
Give oral presentations about personal experiences, topics of interest, and/or stories, using appropriate eye contact, volume and clear enunciation.	<p>RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>RL1.3 Describe characters, settings, and major events in a story, using key details.</p> <p>RI1.7 Use illustrations and details in a text to describe its key ideas.</p> <p>RI1.8 Identify the reasons an author gives to support points in a text.</p> <p>SL1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.</p>	
C. Comprehension and Discussion of Read-Alouds – All Texts		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text, and poems.	RI.1.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. RI.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1. RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.	
Distinguish the following genres of literature: fiction, nonfiction and drama.	RI.1.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. RI.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1. RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.	
Grasping Specific Details and Key Ideas		
Describe illustrations.	RI.1.7 Use illustrations and details in a story to describe its characters, setting, or events. RI.1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. RI.1.7 Use illustrations and details in a text to describe its key ideas.	
Sequence four to six pictures illustrating events in a read-aloud.	RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. RI.1.2 Identify the main topic and retell key details of a text. RI.1.7 Use illustrations and details in a text to describe its key ideas.	
Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc.	RI.1.1 Ask and answer questions about key details in a text. RI.1.1 Ask and answer questions about key details in a text.	
Retell key details.	RI.1.1 Ask and answer questions about key details in a text. RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>RI.1.2 Identify the main topic and retell key details of a text.</p> <p>RI.1.8 Identify the reasons an author gives to support points in a text.</p>	
Ask questions to clarify information in a read-aloud.	<p>RI.1.1 Ask and answer questions about key details in a text.</p> <p>RI.1.1 Ask and answer questions about key details in a text.</p> <p>W.1.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.</p> <p>W.1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> <p>SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p>c. Ask questions to clear up any confusion about the topics and texts under discussion.</p>	
Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in a read-aloud.	<p>RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>RI.1.3 Describe characters, settings, and major events in a story, using key details.</p> <p>W.1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.</p>	
Observing Craft and Structure		
Understand and use words and phrases heard in read-alouds.	<p>RI.1.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.</p> <p>RI.1.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.</p> <p>L.1.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.</p> <p>a. Use sentence-level context as a clue to the meaning of a word or phrase.</p>	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>b. Use frequently occurring affixes as a clue to the meaning of a word.</p> <p>L1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <p>b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes).</p> <p>d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.</p>	
Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.	<p>RL1.9 Compare and contrast the adventures and experiences of characters in stories.</p> <p>RI1.9 Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).</p>	
Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.	<p>RL1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.</p> <p>RI1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI1.10 With prompting and support, read informational texts appropriately complex for grade 1.</p> <p>L1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <p>c. Identify real-life connections between words and their use (e.g., note places at school that are cozy).</p>	
Integrating Information and Evaluating Evidence		
Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.	<p>RL1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.</p> <p>RI1.10 With prompting and support, read informational texts appropriately complex for grade 1.</p>	
Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.	<p>RL1.1 Ask and answer questions about key details in a text.</p> <p>RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p>	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>RI.1.3 Describe characters, settings, and major events in a story, using key details.</p> <p>RI.1.7 Use illustrations and details in a story to describe its characters, setting, or events.</p> <p>RI.1.1 Ask and answer questions about key details in a text.</p> <p>RI.1.2 Identify the main topic and retell key details of a text.</p> <p>RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>RI.1.7 Use illustrations and details in a text to describe its key ideas.</p>	
Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions.	<p>RI.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.</p> <p>RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.</p>	
Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering “why” questions that require recognizing cause/effect relationships.	<p>W.1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.</p> <p>L.1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>g. Use frequently occurring conjunctions (e.g., and, but, or, so, because).</p>	
Interpret information that is presented orally and then ask additional questions to clarify information or the topic in the read-aloud.	SL.1.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	
Identify who is telling a story or providing information in a text.	RI.1.6 Identify who is telling the story at various points in a text.	
D. Comprehension and Discussion of Read-Alouds – Fiction, Drama, and Poetry		
Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	<p>RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>RI.1.2 Identify the main topic and retell key details of a</p>	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	text.	
Compare and contrast characters from different stories.	RL1.9 Compare and contrast the adventures and experiences of characters in stories.	
Change some story events and provide a different story ending.	W1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	
Create and tell an original story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	W1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	
Distinguish fantasy from realistic text in a story.	RL1.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	
**Evaluate and select read-alouds, books, or poems on the basis of personal choice for rereading (L.1.27).	RL1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1. RI1.10 With prompting and support, read informational texts appropriately complex for grade 1.	
Identify the moral or lesson of a fable, folktale, or myth.	RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.	
Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.	RL1.6 Identify who is telling the story at various points in a text.	
Identify sensory language and how it is used to describe people, objects, places and events.	RL1.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. SL1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	
E. Comprehension and Discussion of Read-Alouds: Non-Fiction and Informational Texts		
Generate questions and seek information from multiple sources to answer questions.	RI1.5 Know and use various text features (e.g., heading, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. RI1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. RI1.7 Use illustrations and details in a text to describe its	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>key ideas.</p> <p>W1.7 Participate in shared research and writing projects (e.g., explore a number of “how-to” books and use them to write a sequence of instructions)</p> <p>W1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> <p>SL1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p>	
Answer questions about the details of a nonfiction text, indicating which part of the text provided the information needed to answer specific questions.	SL1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	
With assistance, categorize and organize facts and information within a given topic.	<p>RI1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>W1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.</p> <p>W1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.</p> <p>W1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.</p> <p>LI1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <p>a. Sort common objects into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.</p>	
With assistance, create and interpret timelines and lifelines related to read-alouds.	<p>RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>RL1.3 Describe characters, settings, and major events in a story, using key details.</p>	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	RI.1.2 Identify the main topic and retell key details of a text. RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.	
**Draw pictures, dictate, or write simple sentences to represent details or information from a read-aloud (L.1.24)	Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure. SL.1.5 Add drawings or other visual displays to descriptions when appropriate to task and situation.	
Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.	RI.1.7 Use illustrations and details in a text to describe its key ideas.	
II. Reading		
A. Print Awareness		
Demonstrate understanding that what is said can be written and that the writing system is a way of writing down sounds. Demonstrate understanding of directionality (left to right, return sweep, top to bottom, front to back). Identify the parts of books and function of each part (front cover, back cover, title page, table of contents). Demonstrate correct book orientation by holding book correctly and turning pages.	RF1.1 Demonstrate understanding of the organization and basic features of print.	
Recognize that sentences in print are made up of separate words.	RF1.1 Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).	
Understand that words are separated by spaces.	RF1.1 Demonstrate understanding of the organization and basic features of print.	
Distinguish letters, words, sentences, and stories.	RF1.1 Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	punctuation).	
Demonstrate understanding of basic print conventions by tracking and following print word for word when listening to text read aloud. Demonstrate understanding that the sequence of letters in a written word represents the sequence of sounds in the spoken word.	RF1.1 Demonstrate understanding of the organization and basic features of print.	
Recognize and name the 26 letters of the alphabet in both their upper-case and lower-case forms.		
Say the letters of the alphabet in order, either in song or recitation.		
B. Phonemic Awareness		
Demonstrate understanding that words are made up of sequences of sounds. Demonstrate understanding that vowel sounds are produced with the mouth open and airflow unobstructed, whereas consonant sounds involve closing parts of the mouth and blocking the air flow. Given a pair of spoken words, select the one that is longer (i.e., contains more phonemes).	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	
In riddle games, supply words that begin with a target phoneme. Indicate whether a target phoneme is or is not present in the initial/medial/final position of a spoken word, e.g., hear /m/ at the beginning of mat and /g/ at the end of bag. Listen to one-syllable words and tell the beginning or ending sounds, e.g., given dog, identify initial /d/ or final /g/. Recognize the same phoneme in different spoken words, e.g., /b/ in ball, bug, and big.	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.	
Identify whether pairs of phonemes are the same or different, including pairs that differ only in voicing, e.g., /b/ and /p/.	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	
Orally blend two to three sounds to form a word, e.g., given the sounds /k/... /a/.../t/, blend to	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
make cat.	b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.	
Segment a spoken word into phonemes, e.g., given bat, produce the segments/b//a//t/.	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).	
Given a spoken word, produce another word that rhymes, e.g., given hit, supply bit or mitt.	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).	
Identify the number of syllables in a spoken word.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.	
C. Phonics: Decoding and Encoding		
Demonstrate understanding that a systematic, predictable relationship exists between written letters (graphemes) and spoken sounds (phonemes).	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
Blend individual phonemes to pronounce printed words. Understand that sometimes two or more printed letters stand for a single sound.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. b. Decode regularly spelled one-syllable words.	
Read one to two syllable words containing any of the grapheme-phoneme correspondences listed below.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. b. Decode regularly spelled one-syllable words. RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. e. Decode two-syllable words following basic patterns by breaking the words into syllables.	
Read and write words with inflectional endings, i.e., -s, -ed, -ing, -er, -est.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. f. Read words with inflectional endings. L1.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	c. Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking).	
Read, understand, and write contractions, i.e., isn't, I'm, can't, etc.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. g. Recognize and read grade-appropriate irregularly spelled words.	
Sort and classify words according to the spelling used to represent a specific phoneme.		
Read tricky spellings that can be sounded two ways, e.g., the letter 's' sounded /s/ as in cats and /z/ as in dogs. Read and spell chains of one-syllable words in which one sound is added, substituted, or omitted, i.e., read at > cat > bat > bad > bid.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
Read at least 30 words generally identified as high frequency words.	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. g. Recognize and read grade-appropriate irregularly spelled words.	
Consonant Sounds and Spellings Taught in 1st Grade		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>/b/ spelled 'b' as in boy, 'bb' as in tubby /d/ spelled 'd' as in dog, 'dd' as in madder, 'ed' as in filled /f/ spelled 'f' as in fun, 'ff' as in stuff /g/ spelled 'g' as in get, 'gg' as in egg /h/ spelled 'h' as in him /j/ spelled 'j' as in jump, 'g' as in gem, 'ge' as in fringe /k/ spelled 'c' as in cat, 'k' as in kitten, 'ck' as in sick, 'cc' as in moccasin /l/ spelled 'l' as in lip, 'll' as in sell /m/ spelled 'm' as in mad, 'mm' as in hammer /n/ spelled 'n' as in net, 'nn' as in funny, 'kn' as in knock /p/ spelled 'p' as in pet, 'pp' as in happy /r/ spelled 'r' as in red, 'rr' as in earring, 'wr' as in wrist /s/ spelled 's' as in sit, 'ss' as in dress, 'c' as in cent, 'ce' as in prince, 'se' as in rinse /t/ spelled 't' as in top, 'tt' as in butter, 'ed' as in asked /v/ spelled 'v' as in vet, 've' as in twelve /w/ spelled 'w' as in wet, 'wh' as in when /x/ spelled 'x' as in tax /y/ spelled 'y' as in yes /z/ spelled 'z' as in zip, 'zz' as in buzz, 's' as in dogs</p>	<p>RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p>	
<p>/ch/ spelled 'ch' as in chop, 'tch' as in itch /sh/ spelled 'sh' as in ship /th/ spelled 'th' as in thin /th/ spelled 'th' as in then /qu/ spelled 'qu' as in quick /ng/ spelled 'ng' as in sing, 'n' as in pink</p>	<p>RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Know the sound-spelling correspondences for common consonant digraphs.</p>	
Vowel Sounds and Spellings Taught in 1 st Grade		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
/a/ spelled 'a' as in cat /e/ spelled 'e' as in get /i/ spelled 'i' as in hit /o/ spelled 'o' as in hot /u/ spelled 'u' as in but	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words. RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
/ae/ spelled 'a_e' as in cake, 'ai' as in wait, 'ay' as in day, 'a' as in paper /ee/ spelled 'ee' as in bee, 'e' as in me, 'y' as in funny, 'ea' as in beach, 'e_e' as in Pete, 'ie' as in cookie /ie/ spelled 'i_e' as in bike, 'i' as in biting, 'y' as in try, 'ie' as in tie, 'igh' as in night /oe/ spelled 'o_e' as in note, 'oa' as in boat, 'oe' as in toe, 'o' as in open, 'ow' as in snow /ue/ spelled 'u_e' as in cute	RF1.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words. RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words. c. Know final –e and common vowel team conventions for representing long vowel sounds.	
/aw/ spelled 'aw' as in paw /oo/ spelled 'oo' as in look, /oo/ spelled 'oo' as in soon /ou/ spelled 'ou' as in shout /oi/ spelled 'oi' as in oil /er/ spelled 'er' as in her /ar/ spelled 'ar' as in car /or/ spelled 'or' as in for	RF1.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
D. Oral Reading and Fluency		
Read decodable stories that incorporate the specific code knowledge that has been taught.	RI1.10 With prompting and support, read informational texts appropriately complex for grade 1. RF1.4 Read with sufficient accuracy and fluency to support comprehension.	
Demonstrate increased accuracy, fluency, and expression on successive reading of a decodable text (50 wpm by the end of the year).	RF1.4 Read with sufficient accuracy and fluency to support comprehension. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.	
Use phonics skills in conjunction with context to confirm or self-correct word recognition and	RF1.4 Read with sufficient accuracy and fluency to support comprehension.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
understanding, rereading as necessary.	c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	
Demonstrate understanding of and use commas and end punctuation while reading orally.	RF1.4 Read with sufficient accuracy and fluency to support comprehension. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.	
Read aloud, alone, or with a partner at least 15 minutes each day.	RF1.4 Read with sufficient accuracy and fluency to support comprehension.	
E. Reading Comprehension – All Texts		
Demonstrate understanding of completely decodable text after reading independently	RF1.4 Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding.	
Grasping Specific Details and Key Ideas		
Sequence four to six pictures illustrating events from a text that has been read independently.	RI1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. RI1.2 Identify the main topic and retell key details of a text. RI1.7 Use illustrations and details in a text to describe its key ideas.	
Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, etc.) about a text that has been read independently.	RI1.1 Ask and answer questions about key details in a text. RI1.1 Ask and answer questions about key details in a text.	
Retell key details from a text that has been read independently.	RI1.1 Ask and answer questions about key details in a text. RI1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. RI1.2 Identify the main topic and retell key details of a text. RI1.8 Identify the reasons an author gives to support points in a text.	
Ask questions to clarify information about a text	RI1.1 Ask and answer questions about key details in a	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
that has been read independently.	text. RI.1.1 Ask and answer questions about key details in a text.	
Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.	RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. RI.1.3 Describe characters, settings, and major events in a story, using key details.	
Observing Craft and Structure		
Identify basic text features and what they mean, including title, table of contents, and chapters.	RI.1.5 Know and use various text features (e.g., heading, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	
Understand and use words and phrases from a text that has been read independently.	RI.1.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. RI.1.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. L1.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Use frequently occurring affixes as a clue to the meaning of a word. L1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes). d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	
Compare and contrast similarities and differences within a single text or between multiple texts read independently.	RI.1.9 Compare and contrast the adventures and experiences of characters in stories. RI.1.9 Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations,	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	descriptions, or procedures).	
Make personal connections to events or experiences in a text that has been read independently and/or make connections among several texts that have been read independently.	<p>RI.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.</p> <p>RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.</p> <p>L.1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <p>c. Identify real-life connections between words and their use (e.g., note places at school that are cozy).</p>	
Integrating Information and Evaluating Evidence		
Prior to reading, identify what they know and have learned that may be related to the specific story or topic to be read.	<p>RI.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.</p> <p>RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.</p>	
Use pictures accompanying the written text to check and support understanding.	<p>RI.1.1 Ask and answer questions about key details in a text.</p> <p>RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.</p> <p>RI.1.3 Describe characters, settings, and major events in a story, using key details.</p> <p>RI.1.7 Use illustrations and details in a story to describe its characters, setting, or events.</p> <p>RI.1.1 Ask and answer questions about key details in a text.</p> <p>RI.1.2 Identify the main topic and retell key details of a text.</p> <p>RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.</p> <p>RI.1.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.</p> <p>RI.1.7 Use illustrations and details in a text to describe its key ideas.</p>	
Make predictions prior to and while reading.	RI.1.10 With prompting and support, read prose and	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
based on the title, pictures, and/or text read thus far and then compare the actual outcomes to predictions.	poetry of appropriate complexity for grade 1. RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.	
Answer questions that require making interpretations, judgments, or giving opinions about what is read independently, including answering “why” questions that require recognizing cause/effect relationships.	W.1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure. L.1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. g. Use frequently occurring conjunctions (e.g., and, but, or, so, because).	
Identify who is telling a story or providing information in a text.	RI.1.6 Identify who is telling the story at various points in a text.	
Identify temporal words that link and sequence events, i.e., first, next, then, etc.		
Identify words that link ideas, i.e., for example, also, in addition.	RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.	
F. Reading Comprehension- Fiction, Drama, and Poetry		
Retell or dramatize a story, using narrative language to describe characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.	
Compare and contrast characters from different stories.	RI.1.9 Compare and contrast the adventures and experiences of characters in stories.	
Change some story events and provide a different story ending.		
Distinguish fantasy from realistic text in a story.	RI.1.5 Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	
**Evaluate and select read-alouds, books, or poems on the basis of personal choice for rereading (L.1.27).	RI.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1. RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.	
Identify the moral or lesson of a fable, folktale, or myth.	RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	lesson.	
Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.	RI.1.6 Identify who is telling the story at various points in a text.	
Identify sensory language and how it is used to describe people, objects, places and events.	RI.1.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	
G. Reading Comprehension – Non-Fiction and Informational Texts		
With assistance, create and interpret timelines and lifelines related to text read independently.	RI.1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. RI.1.3 Describe characters, settings, and major events in a story, using key details. RI.1.2 Identify the main topic and retell key details of a text. RI.1.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.	
Distinguish text that describes events that happened long ago from text that describes contemporary or current events.	RI.1.7 Use illustrations and details in a text to describe its key ideas.	
III. Writing		
Writing to Reflect Audience, Purpose, and Task		
Add details to writing.	W1.5 With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.	
Begin to use tools, including technology, to plan, draft, and edit writing.	W1.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.	
Conducting Research		
Gather information from experiences or provided text sources.	W1.7 Participate in shared research and writing projects (e.g., explore a number of “how-to” books and use them to write a sequence of instructions) W1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
A. Narrative Writing		
Write or retell a story that includes characters, setting(s), and a beginning, a middle and an end to events of the story in proper sequence.	RL1.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson. W1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	
Write a descriptive paragraph using sensory language.		
Create a title and an ending that are relevant to the narrative.	W1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure. W1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	
B. Informative/Explanatory Writing		
Write about a topic, including a beginning and ending sentence, facts and examples relevant to the topic, and specific steps (if writing explanatory text).	W1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	
C. Persuasive Writing (Opinion)		
Express an opinion or point of view in writing, providing reasons and supporting details for preference or opinion using the linking word because.	W1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	
Create a title that is relevant to the topic or subject of the text.	W1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	
If writing about a specific book or read-aloud, refer to the content of the text.	W1.1 Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	
IV. Language Conventions		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Form letters, words, phrases and sentences to communicate thoughts and ideas.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print many upper- and lowercase letters.	
Apply basic spelling conventions.	L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.	
Use basic capitalization and punctuation in sentences to convey meaning.		
A. Handwriting and Spelling		
Print from memory the 26 letters of the alphabet accurately in both their upper-case and lower-case forms.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print many upper- and lowercase letters.	
Write on primary lined paper from left to right, staying within the lines and leaving spaces between words, and from top to bottom, using return sweep.		
Write phonemically plausible spellings for words that cannot be spelled correctly with current code knowledge, e.g., write ate for eight, boi for boy, fone for phone.	L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.	
Write words, phrases, and sentences from dictation, applying phonics knowledge.	L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.	
Identify and use synonyms and antonyms.	L1.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies. L1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	
B. Parts of speech and Sentence Structure		
Recognize, identify and use subject, object, and possessive pronouns, i.e., I, me, my, they, them, orally, in written text and in own writing.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. b. Use common, proper, and possessive nouns. d. Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their; anyone, everything). h. Use determiners (e.g. articles, demonstratives)	
Recognize, identify and use common and proper nouns, orally, in written text, and in own writing.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. c. Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).	
Recognize, identify and use regular verbs to convey a sense of past, present, and future tense orally, in written text, and in own writing.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. e. Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home).	
Recognize, identify, and use adjectives orally, in written text, and in own writing.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. f. Use frequently occurring adjectives.	
Recognize, identify and use subjects and predicates, orally, in written text, and in own writing.	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	
Recognize, identify, and use statements, questions, and exclamations orally, in written	L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
text, and in own writing.	speaking. j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	
Produce and expand complete sentences orally and in shared writing exercises.	W1.7 Participate in shared research and writing projects (e.g., explore a number of “how-to” books and use them to write a sequence of instructions) SL1.6 Produce complete sentences when appropriate to task and situation. L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	
C. Capitalization and Punctuation		
Capitalize the first word in a sentence, the pronoun I, and proper nouns (names and places,) months, days of the week.	RF1.1 Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation). L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize dates and names of people.	
Identify and use end punctuation, including periods, question marks, and exclamation points.	RF1.1 Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation). L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Use end punctuation for sentences.	
Use commas appropriately in greetings and closings of letters, dates, and items in a series.	L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	c. Use commas in dates and to separate single words in a series.	
Write a simple friendly letter.		
Use apostrophes to create contractions and indicate possession, i.e., cat's meow.	L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
Use quotation marks appropriately to designate direct speech.	L1.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
V. Poetry*		
Hope (Langston Hughes) I Know All the Sounds the Animals Make (Jack Prelutsky) My Shadow (Robert Louis Stevenson) The Owl and the Pussycat (Edward Lear) The Pasture (Robert Frost) The Purple Cow (Gelett Burgess) Rope Rhyme (Eloise Greenfield) Sing a Song of People (Lois Lenski) Solomon Grundy (traditional) The Swing (Robert Louis Stevenson) Table Manners [also known as "The Goops"] (Gelett Burgess) Thanksgiving Day ["Over the river and through the wood"] (Lydia Maria Child) Washington (Nancy Byrd Turner) Wynken, Blynken, and Nod (Eugene Field)	RL1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.	
VI. Fiction		
A. Stories*		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
The Boy at the Dike (folktale from Holland) The Frog Prince Hansel and Gretel selections from The House at Pooh Corner (A. A. Milne) How Anansi Got Stories from the Sky God (folktale from West Africa) It Could Always Be Worse (Yiddish folktale) Jack and the Beanstalk The Knee-High Man (African-American folktale) Medio Pollito (Hispanic folktale) The Pied Piper of Hamelin Pinocchio The Princess and the Pea Puss-in-Boots Rapunzel Rumpelstiltskin Sleeping Beauty The Tale of Peter Rabbit (Beatrix Potter) Tales of Br'er Rabbit (recommended tales: Br'er Rabbit Gets Br'er Fox's Dinner; Br'er Rabbit Tricks Br'er Bear; Br'er Rabbit and the Tar Baby) Why the Owl Has Big Eyes (Native American legend)		
B. Aesop's Fables*		
The Boy Who Cried Wolf The Dog in the Manger The Wolf in Sheep's Clothing The Maid and the Milk Pail The Fox and the Grapes The Goose and the Golden Eggs		
C. Different Lands, Similar Stories*		

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Lon Po Po (China) and Little Red Riding Hood Issun Boshi, or One-Inch Boy (Japan); Tom Thumb (England); Thumbelina (by the Danish writer Hans Christian Andersen); Little Finger of the Watermelon Patch (Vietnam)</p> <p>Some of the many variations on the Cinderella story (from Europe, Africa, China, Vietnam, Egypt, Korea, etc.)</p>		
D. Literary Terms		
Characters, heroes, and heroines		
<p>Drama</p> <p>actors and actresses</p> <p>costumes, scenery and props</p> <p>theater, stage, audience</p>		
VII. Sayings and Phrases		
<p>A.M. and P.M.</p> <p>An apple a day keeps the doctor away.</p> <p>Do unto others as you would have them do unto you. [also in Kindergarten]</p> <p>Fish out of water</p> <p>Hit the nail on the head.</p> <p>If at first you don't succeed, try, try again.</p> <p>Land of Nod</p> <p>Let the cat out of the bag.</p> <p>The more the merrier.</p> <p>Never leave till tomorrow what you can do today.</p> <p>Practice makes perfect. [also in Kindergarten]</p> <p>Sour grapes</p> <p>There's no place like home..</p> <p>Wolf in sheep's clothing</p>	<p>RL1.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.</p> <p>L1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <p>L1.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., I named my hamster Nibblet because she nibbles too much because she likes that).</p>	

Core Knowledge Sequence Grade 1	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>*Reading: Text complexity and the growth of comprehension</p> <p>The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by grade “staircase” of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.</p> <p>(Common Core State Standards for ENGLISH LANGUAGE ART S & Literacy in History/Social Studies, Science, and Technical Subjects, p. 8)</p>		
<p>**The Core Knowledge Language Arts Program: Grade 1 Language Art Objectives for Listening and Learning</p>		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Listening and Speaking		
A. Classroom Discussion		
Maintain attention and actively participate in discussions about a variety of topics, ideas, and texts in both small and large group settings.	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. <ul style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion. 	
Speak clearly with volume appropriate to the setting.	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. <ul style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). 	
Use agreed-upon rules for group discussions, i.e., look at and listen to the speaker, raise hand to speak, take turns, say "excuse me" or "please," etc.	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. <ul style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion) 	
Ask questions to clarify conversations, directions, exercises, and/or classroom routines.	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. <ul style="list-style-type: none"> c. Ask for clarification and further explanation as needed about the topics and texts under discussion. 	
Carry on and participate in a conversation over at least six turns, staying on topic, initiating comments or responding to a partner's	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.	SL4.3 Identify the reasons and evidence a speaker provides to support particular points. SL5.3 Summarize the points a speaker makes and explain

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
comments, with either an adult or another child of the same age.	b. Build on others' talk in conversations by linking their comments to the remarks of others. SL2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on pages 26 and 27 for specific expectations.)	how each claim is supported by reasons and evidence.
Participate in a conversation or group discussion by making reference to, or building upon, a comment made by another person.	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. b. Build on others' talk in conversations by linking their comments to the remarks of others.	SL4.3 Identify the reasons and evidence a speaker provides to support particular points. SL5.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
Identify and express physical sensations, mental states, and emotions of self and others.		
Understand and use language to express spatial and temporal relationships (up, down, first, last, before, after, etc.).		
Understand and use narrative language to describe people, places, things, locations, events, actions.	SL2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.	
Understand and use common sayings and phrases such as "Don't judge a book by its cover" and "Better late than never" (see page 60).	L2.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).	
B. Presentation of Ideas and Information		
Follow multi-step, oral directions.	SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).	
Give simple directions.	W2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section. SL2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on pages 26 and 27 for specific expectations.)	SL3.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Provide simple explanations.	<p>RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RI.2.3 Describe how characters in a story respond to major events and challenges.</p> <p>RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RI.2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.</p> <p>RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.</p> <p>RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.</p> <p>RI.2.8 Describe how reasons support specific points the author makes in a text.</p> <p>W.2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.</p> <p>W.2.8 Recall information from experiences or gather information from provided sources to answer a question.</p> <p>SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p>SL.2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p> <p>SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 on pages 26 and 27 for specific expectations.)</p>	
Recite a nursery rhyme, poem or song independently, using appropriate eye contact, volume and clear enunciation.	<p>RI.2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p>	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	RL2.3 Describe how characters in a story respond to major events and challenges.	
Give oral presentations about personal experiences, topics of interest, stories, and summaries of factual information that have been presented orally, visually or through multimedia, using appropriate eye contact, volume and clear enunciation.	SL2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.	SL3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
C. Comprehension and Discussion of Read-Alouds – All Texts		
Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text, and poems.	<p>RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p> <p>RL2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.</p> <p>RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	<p>RI4.5 Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.</p> <p>RI5.5 Compare and contrast the overall structure (e.g., chronology, comparison cause/effect, problem/solution) of events, ideas, concepts or information in two or more texts.</p>
Distinguish the following genres of literature: fiction, nonfiction and drama.	<p>RL2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.</p> <p>RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	
Grasping Specific Details and Key Ideas		
Describe illustrations.	RL2.7 Use information gained from the illustrations and words in a print or digital text to demonstrate	RL3.7 Explain how specific aspects of a text’s illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	understanding of its characters, setting, or plot. RI2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	character or setting). RI3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
Sequence four to six pictures illustrating events in a read aloud.	RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.	
Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, etc.	RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
Retell key details.	RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. RI2.8 Describe how reasons support specific points the author makes in a text. SL2.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	
Summarize in one's own words selected parts of a read-aloud.	RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	
Ask questions to clarify information in a read-aloud.	RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. W2.8 Recall information from experiences or gather	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>information from provided sources to answer a question.</p> <p>SL2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p style="padding-left: 40px;">c. Ask for clarification and further explanation as needed about the topics and texts under discussion.</p> <p>SL2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.</p>	
Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in a read-aloud.	<p>RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p> <p>RL2.3 Describe how characters in a story respond to major events and challenges.</p> <p>W2.3 Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.</p>	
Observing Craft and Structure		
Understand and use words and phrases heard in read-alouds.	<p>RL2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.</p> <p>RI2.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.</p> <p>L2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.</p> <p>L2.5 Demonstrate understanding of word relationships and nuances in word meanings.</p>	
Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.	<p>RI2.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.</p> <p>RI2.9 Compare and contrast the most important points presented by two texts on the same topic.</p>	<p>RI3.9 Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).</p> <p>RI3.9 Compare and contrast the most important points and key details presented in two texts on the same topic.</p> <p>RI4.7 Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific</p>

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
		descriptions and directions in the text.
Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.	<p>RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.</p> <p>RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L2.5 Demonstrate understanding of word relationships and nuances in word meanings.</p> <p>SL2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.</p>	
Integrating Information and Evaluating Evidence		
Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.	<p>RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	
Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.	<p>RL2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p> <p>RL2.3 Describe how characters in a story respond to major events and challenges.</p> <p>RL2.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.</p>	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.</p> <p>RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.</p> <p>RI2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.</p>	
Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to predictions.	<p>RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	
Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a read-aloud, including answering “why” questions that require recognizing cause/effect relationships.	<p>RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RI2.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.</p> <p>W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p>	<p>RI3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</p> <p>RI3.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</p>
Interpret information that is presented orally and then ask additional questions to clarify information or the topic in the read-aloud.	SL2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.	
Identify who is telling a story or providing information in a text.	RL2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	
D. Comprehension and Discussion of Read-Alouds – Fiction, Drama, and Poetry		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Retell a story, using narrative language to describe characters, setting(s), and the plot of the story in proper sequence.	<p>RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p> <p>RL2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.</p> <p>RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.</p>	RL3.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
Compare and contrast characters from different stories.	RL2.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.	RL3.9 Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).
Describe characters in increasing depth by referring to dialogue and/or their actions in the story.	<p>RL2.3 Describe how characters in a story respond to major events and challenges.</p> <p>RL2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.</p>	RL3.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
Change some story events and provide a different story ending. Create and tell an original story, using narrative language to describe characters, setting(s), and the plot of the story in proper sequence.	W2.3 Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.	
Distinguish fantasy from realistic text in a story.	RL2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.	
Identify the moral or lesson of a fable, folktale, or myth.	RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	
Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.	RL2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	
Identify repetitions in phrases, refrains, or sounds in poems or songs.	RL2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	
Identify sensory language and how it is used to describe people, objects, places and events.	<p>RL2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.</p> <p>SL2.4 Tell a story or recount an experience with</p>	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.	
Describe the use of rhyme, rhythm and sensory images used in poetry.	RL.2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	
E. Comprehension and Discussion of Read-Alouds – Non Fiction and Informational Text		
Generate questions and seek information from multiple sources to answer questions.	<p>RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RI.2.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.</p> <p>RI.2.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.</p> <p>RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.</p> <p>W.2.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).</p> <p>W.2.8 Recall information from experiences or gather information from provided sources to answer a question.</p>	
Answer questions about the details of a nonfiction text, indicating which part of the text provided the information needed to answer specific questions.	<p>RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>SL.2.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>	
With assistance, categorize and organize facts and information within a given topic.	<p>RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.</p> <p>W.2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop</p>	<p>RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in text.</p> <p>RI.5.3 Explain the relationship or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information.</p>

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	points, and provide a concluding statement or section. W2.8 Recall information from experiences or gather information from provided sources to answer a question. L2.5 Demonstrate understanding of word relationships and nuances in word meanings.	
With assistance, create and interpret timelines and lifelines related to read-alouds.	RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RL2.3 Describe how characters in a story respond to major events and challenges RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	
Interpret information presented in diagrams, charts, graphs, etc.	RI2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	RI4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.	RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	
II. Reading		
A. Phonics: Decoding and Encoding		
Demonstrate understanding that a systematic, predictable relationship exists between written letters (graphemes) and spoken sounds (phonemes).	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
Blend individual phonemes to pronounce printed words.	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words. c. Decode regularly spelled two-syllable words with long vowels. d. Decode words with common prefixes and suffixes.	
Understand that sometimes two or more printed letters stand for a single sound.	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>regularly spelled one-syllable words.</p> <p>b. Know spelling-sound correspondences for additional common vowel teams.</p> <p>c. Decode regularly spelled two-syllable words with long vowels.</p> <p>d. Decode words with common prefixes and suffixes.</p>	
Read multi-syllable words containing any of the grapheme-phoneme correspondences listed below.	<p>RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>c. Decode regularly spelled two-syllable words with long vowels.</p> <p>d. Decode words with common prefixes and suffixes.</p>	
Read and write words with inflectional endings, i.e., -s, -ed, -ing, -er, -est.	<p>L2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.</p> <p>c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).</p>	
Read, understand, and write contractions, i.e., isn't, I'm, can't, etc.	<p>RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>f. Recognize and read grade-appropriate irregularly spelled words.</p>	
Sort and classify words according to the spelling used to represent a specific phoneme.		
Read tricky spellings that can be sounded two ways, e.g., the letter 's' sounded /s/ as in cats and /z/ as in dogs.	<p>RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>e. Identify words with inconsistent but common spelling-sound correspondences.</p>	
Read and spell chains of one-syllable words in which one sound is added, substituted, or omitted, i.e., read at > cat > bat > bad > bid.	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
Consonant Sounds and Spellings Taught in Second Grade		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>/b/ spelled 'b' as in boy, 'bb' as in tubby</p> <p>/d/ spelled 'd' as in dog, 'dd' as in madder, 'ed' as in filled</p> <p>/f/ spelled 'f' as in fun, 'ff' as in stuff</p> <p>/g/ spelled 'g' as in get, 'gg' as in egg</p> <p>/h/ spelled 'h' as in him</p> <p>/j/ spelled 'j' as in jump, 'g' as in gem, 'ge' as in fringe</p> <p>/k/ spelled 'c' as in cat, 'k' as in kitten, 'ck' as in sick, 'cc' as in moccasin</p> <p>/l/ spelled 'l' as in lip, 'll' as in sell</p> <p>/m/ spelled 'm' as in mad, 'mm' as in hammer</p> <p>/n/ spelled 'n' as in net, 'nn' as in funny, 'kn' as in knock</p> <p>/p/ spelled 'p' as in pet, 'pp' as in happy</p> <p>/r/ spelled 'r' as in red, 'rr' as in earring, 'wr' as in wrist</p> <p>/s/ spelled 's' as in sit, 'ss' as in dress, 'c' as in cent, 'ce' as in prince, 'se' as in rinse</p> <p>/t/ spelled 't' as in top, 'tt' as in butter, 'ed' as in asked</p> <p>/v/ spelled 'v' as in vet, 've' as in twelve</p> <p>/w/ spelled 'w' as in wet, 'wh' as in when</p> <p>/x/ spelled 'x' as in tax</p> <p>/y/ spelled 'y' as in yes</p> <p>/z/ spelled 'z' as in zip, 'zz' as in buzz, 's' as in dogs</p> <p>/ch/ spelled 'ch' as in chop, 'tch' as in itch</p> <p>/sh/ spelled 'sh' as in ship</p> <p>/th/ spelled 'th' as in thin</p> <p>/th/ spelled 'th' as in then</p> <p>/qu/ spelled 'qu' as in quick</p> <p>/ng/ spelled 'ng' as in sing, 'n' as in pink</p>	<p>RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words</p>	
Vowel Sounds and Spellings Taught in Second Grade		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
/a/ spelled 'a' as in cat /e/ spelled 'e' as in get, 'ea' as in head /i/ spelled 'i' as in hit, 'y' as in myth /o/ spelled 'o' as in hot, 'a' as in wall /u/ spelled 'u' as in but, 'o' as in son	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading regularly spelled one-syllable words.	
/ae/ spelled 'a_e' as in cake, 'ai' as in wait, 'ay' as in day, 'a' as in paper, 'ey' as in hey, 'ei' as in weight, 'ea' as in great /ee/ spelled 'ee' as in bee, 'e' as in me, 'y' as in funny, 'ea' as in beach, 'e_e' as in Pete, 'ie' as in cookie, 'i' as in ski, 'ey' as in key /ie/ spelled 'i_e' as in bike, 'i' as in biting, 'y' as in try, 'ie' as in tie, 'igh' as in night /oe/ spelled 'o_e' as in note, 'oa' as in boat, 'oe' as in toe, 'o' as in open, 'ow' as in snow /ue/ spelled 'u_e' as in cute, 'u' as in unit, 'ue' as in cue	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading regularly spelled one-syllable words. b. Know spelling-sound correspondences for additional common vowel teams. c. Decode regularly spelled two-syllable words with long vowels.	
/aw/ spelled 'aw' as in paw, 'au' as in Paul, 'augh' as in caught, 'ough' as in bought /oo/ spelled 'oo' as in look, 'u' as in student, 'ue' as in blue, 'ui' as in fruit, 'ew' as in new, 'u_e' as in tune /oo/ spelled 'oo' as in soon /ou/ spelled 'ou' as in shout, 'ow' as in now /oi/ spelled 'oi' as in oil, 'oy' as in toy /er/ spelled 'er' as in her, 'ur' as in hurt, 'ir' as in bird, 'ar' as in dollar /ar/ spelled 'ar' as in car /or/ spelled 'or' as in for, 'ore' as in more, 'our' as in four, 'oor' as in door Schwa spelled 'a' as in about /shun/ spelled 'tion' as in mention	RF2.3 Know and apply grade-level phonics and word analysis skills in decoding words.	
B. Oral Reading and Fluency		
Read decodable stories that incorporate the specific code knowledge that has been taught.	RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	at the high end of the range. RF2.4 Read with sufficient accuracy and fluency to support comprehension.	
Demonstrate increased accuracy, fluency, and expression on successive reading of a decodable text (90 wpm by the end of the year).	RF2.4 Read with sufficient accuracy and fluency to support comprehension. <ul style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	RF3.4 Read with sufficient accuracy and fluency to support comprehension. <ul style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. SL3.5 Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
Use phonics skills in conjunction with context to confirm or self-correct word recognition and understanding, rereading as necessary.	RF2.4 Read with sufficient accuracy and fluency to support comprehension. <ul style="list-style-type: none"> c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. L2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies. <ul style="list-style-type: none"> a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional). d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark). e. Use glossaries and beginning dictionaries, both 	RF3.4 Read with sufficient accuracy and fluency to support comprehension. <ul style="list-style-type: none"> c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. RF4.4 Read with sufficient accuracy and fluency to support comprehension <ul style="list-style-type: none"> c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. RF5.4 Read with sufficient accuracy and fluency to support comprehension <ul style="list-style-type: none"> c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	print and digital, to determine or clarify the meaning of words and phrases. RI2.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.	
Demonstrate understanding of and use commas and end punctuation while reading orally.	RF2.4 Read with sufficient accuracy and fluency to support comprehension. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.	
Read aloud, alone, or with a partner at least 20 minutes each day.	RF2.4 Read with sufficient accuracy and fluency to support comprehension.	
C. Reading Comprehension – All Texts		
Demonstrate understanding of text—the majority of which is decodable—after independent reading.	RF2.4 Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding.	RF3.4 Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding
Grasping Specific Details and Key Ideas		
Sequence four to six pictures illustrating events from a text that has been read independently.	RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.	
Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, etc.) about a text that has been read independently.	RL2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
Retell key details from a text that has been read independently.	RL2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. RI2.8 Describe how reasons support specific points the	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	author makes in a text.	
Summarize in one's own words selected parts of a text.	RI2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	
Ask questions to clarify information about a text that has been read independently.	RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.	RI2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RI2.3 Describe how characters in a story respond to major events and challenges	
Observing Craft and Structure		
Identify basic text features and what they mean, including title, table of contents, chapter headings and captions.	RI2.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. RI2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	RI3.5 Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
Understand and use words and phrases from a text that has been read independently.	RI2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. RI2.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. L2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional). L2.5 Demonstrate understanding of word relationships	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy). b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny). <p>L2.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).</p>	
<p>Compare and contrast similarities and differences within a single text or between multiple texts read independently.</p>	<p>RL2.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.</p> <p>RI2.9 Compare and contrast the most important points presented by two texts on the same topic.</p>	<p>RL3.9 Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).</p> <p>RI3.9 With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).</p> <p>RL5.9 Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.</p>
<p>Make personal connections to events or experiences in a text that has been read independently and/or make connections among several texts that have been read independently</p>	<p>RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.</p> <p>RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L2.5 Demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy). 	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Integrating Information and Evaluating Evidence		
Prior to reading, identify what they know and have learned that may be related to the specific story or topic to be read.	<p>RI.2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI.2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	
Use pictures accompanying the written text to check and support understanding.	RI.2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	
Make predictions prior to and while reading, based on the title, pictures, and/or text read thus far and then compare the actual outcomes to predictions.	<p>RI.2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RI.2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	
Answer questions that require making interpretations, judgments, or giving opinions about what is read independently, including answering “why” questions that require recognizing cause/effect relationships.	<p>RI.2.8 Describe how reasons support specific points the author makes in a text.</p> <p>RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</p> <p>W.2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>L.2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p>	
Interpret information that is read independently and then ask questions to clarify this information.	RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	understanding of key details in a text. RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
Identify who is telling a story or providing information in a text.	RI.2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	
Identify temporal words that link and sequence events, i.e., first, next, then, etc.		L.3.6 Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).
Identify words that link ideas, i.e., for example, also, in addition.	RI.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	
D. Reading Comprehension – Fiction, Drama, and Poetry		
Retell a story, using narrative language to describe characters, setting(s), and the plot of the story in proper sequence.	RI.2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RI.2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.	
Compare and contrast characters from different stories.	RI.2.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.	RI.3.9 Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).
Describe characters in increasing depth by referring to dialogue and/or their actions in the story.	RI.2.3 Describe how characters in a story respond to major events and challenges. RI.2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	
Change some story events and provide a different story ending.		
Distinguish fantasy from realistic text in a story.	RI.2.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.	
Identify the moral or lesson of a fable, folktale, or myth.	RI.2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Demonstrate understanding of literary language (e.g., author, illustrator, characters, setting, plot, dialogue, personification, simile, and metaphor) and use some of these terms in retelling stories or creating their own stories.	RL2.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.	
Identify sensory language and how it is used to describe people, objects, places, and events.	RL2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	
Identify repetitions in phrases, refrains, or sounds in poems or songs.	RL2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	
Describe the use of rhyme, rhythm and sensory images used in poetry.	RL2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	
E. Reading Comprehension – Non-Fiction and Informational Text		
Generate questions and seek information from multiple sources to answer questions.	RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
Answer questions about the details of a nonfiction text, indicating which part of the text provided the information needed to answer specific questions.	RI2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. RI2.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	
Interpret information presented in diagrams, charts, graphs, etc.	RI2.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	
With assistance, categorize and organize facts and information for a given topic.	RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. W2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	points, and provide a concluding statement or section. W2.8 Recall information from experiences or gather information from provided sources to answer a question. L2.5 Demonstrate understanding of word relationships and nuances in word meanings.	
With assistance, create and interpret timelines and lifelines related to text read independently.	RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. RL2.3 Describe how characters in a story respond to major events and challenges. RI2.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	
Distinguish text that describes events that happened long ago from text that describes contemporary or current events.	RI2.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.	
III. Writing		
Writing to Reflect Audience, Purpose, and Task		
Add details to writing.	W2.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.	
Begin to use tools, including technology, to plan, draft, and edit writing.	W2.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. W2.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	W3.6 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others W4.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. W5.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
Conducting Research		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Gather information from experiences or provided text sources.	<p>W2.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).</p> <p>W2.8 Recall information from experiences or gather information from provided sources to answer a question.</p>	W3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
A. Narrative Writing		
Write a familiar story that includes setting(s), character(s), dialogue, and if appropriate, several events, using temporal words and phrases to indicate the chronology of events.	<p>RL2.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.</p> <p>W2.3 Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.</p>	
Write a personal narrative.	W2.3 Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.	
Create a title and an ending that are relevant to the narrative.	<p>W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>W2.3 Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.</p>	
B. Informative/Explanatory Writing		
Write about a topic, including a beginning and ending sentence, facts and examples relevant to the topic, and specific steps (if writing explanatory text).	<p>W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>W2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.</p>	
Group similar information into paragraphs.	W2.2 Write informative/explanatory texts in which they	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.	
Use linking words such as also, another, and, etc. to connect ideas within a paragraph.	W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.	
C. Persuasive Writing (Opinion)		
Express an opinion or point of view in writing, providing reasons and supporting details for preference or opinion. Use words to link opinions with reasons or supporting details, such as because, also, another.	W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.	RL3.6 Distinguish their own point of view from that of the narrator or those of the characters. RI3.6 Distinguish their own point of view from that of the author of a text.
Create a title that is relevant to the topic or subject of the text.	W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.	
If writing about a specific book or read-aloud, refer to the content of the text.	W2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.	
IV. Language Conventions		
Form sentences and paragraphs to communicate thoughts and ideas.	L2.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Compare formal and informal uses of English.	
Apply basic spelling conventions.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. d. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).	
Use basic capitalization and punctuation in sentences to convey meaning.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize holidays, product names, and geographic	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
A. Spelling		
Write phonemically plausible spellings for words using current code knowledge, e.g., write doller for dollar, wate for wait or weight.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
Write words, phrases, and sentences from dictation, applying phonics knowledge.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
Alphabetize words to the second letter.		
Use a children's dictionary, with assistance, to check spelling and verify the meaning of words.	<p>L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</p> <p>L2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.</p> <p>e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.</p>	
Identify and use synonyms, antonyms, homophones, and compound words.	<p>L2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.</p> <p>L2.5 Demonstrate understanding of word relationships and nuances in word meanings.</p> <p>b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).</p>	
B. Parts of Speech and Sentence Structure		
Recognize, identify and use subject, object, and possessive pronouns, i.e., I, me, my, they, them, orally, in written text and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	
Recognize, identify and use correct noun-pronoun agreement orally, in written text and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	a. Use collective nouns (e.g., group). b. Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish). c. Use reflexive pronouns (e.g., myself, ourselves).	
Recognize, identify and use common and proper nouns, orally, in written text, and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Use collective nouns (e.g., group).	
Recognize, identify, and use the articles a and an appropriately orally, in written text and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	
Recognize, identify and use selected regular and irregular plural nouns orally, in written text and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. b. Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).	
Recognize, identify and use selected regular and irregular past, present, and future tense verbs orally, in written text, and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. d. Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).	
Recognize, identify, and use adjectives orally, in written text, and in own writing. Recognize, identify, and use adverbs orally, in written text, and in own writing.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. e. Use adjectives and adverbs, and choose between them depending on what is to be modified.	
Recognize, identify and use subjects and predicates, orally, in written text, and in own writing.		
Recognize, identify, and use statements, questions, and exclamations orally, in written text, and in own writing.		
Recognize, identify, and use complete simple and compound sentences.	L2.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. f. Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The	

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	action movie was watched by the little boy).	
C. Capitalization and Punctuation		
Capitalize the first word in a sentence, the pronoun I, and proper nouns (names and places,) months, days of the week, titles of people, and addresses.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize holidays, product names, and geographic	
Recognize, identify and use abbreviations with correct punctuation for the months, days of the week, titles of people, and addresses.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
Identify and use end punctuation, including periods, question marks, and exclamation points.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
Use commas appropriately in greetings and closings of letters, dates, items in a series, and addresses.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Use commas in greetings and closings of letters.	
Write a simple friendly letter.		
Use apostrophes to create contractions and indicate possession, i.e., cat's meow.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. c. Use an apostrophe to form contractions and frequently occurring possessives.	
Use quotation marks appropriately to designate direct speech.	L2.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
V. Poetry*		
Bed in Summer (Robert Louis Stevenson) Bee! I'm expecting you (Emily Dickinson) Buffalo Dusk (Carl Sandburg) Caterpillars (Aileen Fisher) Discovery (Harry Behn) Harriet Tubman (Eloise Greenfield) Hurt No Living Thing (Christina Rossetti) Lincoln (Nancy Byrd Turner)	RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	*Specifically listed in CCSS (Grade 3)

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
The Night Before Christmas (Clement Clarke Moore) Rudolph Is Tired of the City (Gwendolyn Brooks) Seashell (Federico Garcia Lorca) Smart (Shel Silverstein) Something Told the Wild Geese (Rachel Field) There Was an Old Man with a Beard (Edward Lear) Who Has Seen the Wind? (Christina Rossetti) Windy Nights (Robert Louis Stevenson)		
VI. Fiction		
A. Stories*		
Beauty and the Beast The Blind Men and the Elephant (a fable from India) A Christmas Carol (Charles Dickens) Charlotte's Web (E. B. White) The Emperor's New Clothes (Hans Christian Andersen) The Fisherman and His Wife (Brothers Grimm) How the Camel Got His Hump (a "Just-So" story by Rudyard Kipling) Iktomi stories (legends of the Plains Indian trickster figure, such as Iktomi Lost His Eyes; Iktomi and the Berries; Iktomi and the Boulder) The Magic Paintbrush (a Chinese folktale) El Pajaro Cu (a Hispanic folktale) selections from Peter Pan (James M. Barrie) Talk (a West African folktale) The Tiger, the Brahman, and the Jackal (a folktale from India) The Tongue-Cut Sparrow (a folktale from Japan)	RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	*Specifically listed in CCSS (Grade 3)
B. Mythology of Ancient Greece*		
Gods of Ancient Greece and Rome Zeus (Jupiter)		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Hera (Juno) Apollo (Apollo) Artemis (Diana) Poseidon (Neptune) Aphrodite (Venus) Demeter (Ceres) Ares (Mars) Hermes (Mercury) Athena (Minerva) Hephaestus (Vulcan) Dionysus (Bacchus) Eros (Cupid) Hades (Pluto)		
Mount Olympus: home of the gods		
Mythological creatures and characters Atlas (holding the world on his shoulders) centaurs Cerberus Pegasus Pan		
Greek Myths Prometheus (how he brought fire from the gods to men) Pandora's Box Oedipus and the Sphinx Theseus and the Minotaur Daedalus and Icarus Arachne the Weaver Swift-footed Atalanta Demeter and Persephone Hercules (Heracles) and the Labors of Hercules	RL2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	
C. American Folk Heroes and Tall Tales*		

Core Knowledge Sequence GRADE 2	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Paul Bunyan Johnny Appleseed John Henry Pecos Bill Casey Jones	RL.2.10 By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.	
D. Literary Terms		
myth		
tall tale		
limerick		
VII. Sayings and Phrases		
Back to the drawing board Better late than never Cold feet Don't cry over spilled milk. Don't judge a book by its cover. Easier said than done Eaten out of house and home Get a taste of your own medicine Get up on the wrong side of the bed In hot water Keep your fingers crossed. Practice what you preach. The real McCoy Two heads are better than one. Turn over a new leaf Where there's a will there's a way. You can't teach an old dog new tricks.	L2.5 Demonstrate understanding of word relationships and nuances in word meanings. L2.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).	
<p>*Reading: Text complexity and the growth of comprehension</p> <p>The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by grade “staircase” of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.</p> <p>(Common Core State Standards for ENGLISH LANGUAGE ARTS & Literacy in History/Social Studies, Science, and Technical Subjects, p. 8)</p>		

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Reading and Writing		
A. Reading Comprehension and Response		
Independently read and comprehend longer works of fiction (“chapter books”) and nonfiction appropriately written for third grade or beyond.	<p>RL3.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.</p> <p>RI3.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.</p>	
Point to specific words or passages that are causing difficulties in comprehension.		
Orally summarize main points from fiction and nonfiction readings.	<p>RL3.2 Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</p> <p>RI3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>SL3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p>	<p>SL4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, qualitatively, and orally.</p> <p>SL4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas and themes.</p> <p>RL5.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.</p> <p>RI5.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.</p> <p>SL5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, qualitatively, and orally.</p> <p>SL5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.</p>
Ask and pose plausible answers to how, why, and what-if questions in interpreting texts, both fiction and nonfiction.	<p>RL3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>RI3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as</p>	<p>RL4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>RI4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing</p>

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>the basis for the answers.</p> <p>SL3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <ul style="list-style-type: none"> a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion. <p>SL3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p>	<p>inferences from the text.</p> <p>RI5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>RI5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p>
<p>Use a dictionary to answer questions regarding meaning and usage of words with which he or she is unfamiliar.</p>	<p>RI3.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.</p> <p>L3.4 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion). d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases. 	
<p>Know how to use a table of contents and index to</p>	<p>RI3.5 Use text features and search tools (e.g., key words,</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
locate information.	sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	
B. Writing		
Produce a variety of types of writing—such as stories, reports, poems, letters, descriptions—and make reasonable judgments about what to include in his or her own written works based on the purpose and type of composition.	<p>W3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.</p> <ul style="list-style-type: none"> a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. d. Provide a concluding statement or section. <p>W3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. d. Provide a concluding statement or section. <p>W3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure. <p>W3.4 With guidance and support from adults, produce writing in which the development and organization are</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p> <p>L3.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ul style="list-style-type: none"> a. Choose words and phrases for effect. b. Recognize and observe differences between the conventions of spoken and written standard English. 	
Know how to gather information from basic print sources (such as a children’s encyclopedia), and write a short report presenting the information in his or her own words.	<p>W3.7 Conduct short research projects that build knowledge about a topic.</p> <p>W3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
Know how to use established conventions when writing a friendly letter: heading, salutation (greeting), closing, signature.	<p>W3.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
Produce written work with a beginning, middle, and end.	<p>W3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.</p> <ul style="list-style-type: none"> a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. d. Provide a concluding statement or section. <p>W3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</p> <p>b. Develop the topic with facts, definitions, and details.</p> <p>c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.</p> <p>d. Provide a concluding statement or section.</p> <p>W3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</p> <p>b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</p> <p>c. Use temporal words and phrases to signal event order.</p> <p>d. Provide a sense of closure.</p> <p>W3.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
<p>Organize material in paragraphs and understand how to use a topic sentence</p> <p>How to develop a paragraph with examples and details that each new paragraph is indented</p>	<p>W3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.</p> <p>a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.</p> <p>b. Provide reasons that support the opinion.</p> <p>c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>d. Provide a concluding statement or section.</p> <p>W3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p>a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</p> <p>b. Develop the topic with facts, definitions, and details.</p> <p>c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.</p> <p>d. Provide a concluding statement or section.</p> <p>W3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</p> <p>b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</p> <p>c. Use temporal words and phrases to signal event order.</p> <p>d. Provide a sense of closure.</p> <p>W3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
<p>In some writings, proceed with guidance through a process of gathering information, organizing thoughts, composing a draft, revising to clarify and refine his or her meaning, and proofreading with attention to spelling, mechanics, and presentation of a final draft.</p>	<p>W3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.</p> <p>a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.</p> <p>b. Provide reasons that support the opinion.</p> <p>c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.</p> <p>d. Provide a concluding statement or section.</p> <p>W3.2 Write informative/explanatory texts to examine a</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. d. Provide a concluding statement or section. <p>W3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure. <p>W3.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W3.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 3 on pages 28 and 29.)</p> <p>W3.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
C. Spelling Grammar and Usage		

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Spell most words correctly or with a highly probable spelling, and use a dictionary to check and correct spellings about which he or she is uncertain.</p> <p>Use capital letters correctly.</p>	<p>L3.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Capitalize the first word in a sentence and the pronoun I. b. Recognize and name end punctuation. c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships. 	
<p>Understand what a complete sentence is, and identify subject and predicate in single-clause sentences distinguish complete sentences from fragments</p>	<p>L3.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. b. Form and use regular and irregular plural nouns. c. Use abstract nouns (e.g., childhood). d. Form and use regular and irregular verbs. e. Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses. f. Ensure subject-verb and pronoun-antecedent agreement.* g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. h. Use coordinating and subordinating conjunctions. i. Produce simple, compound, and complex sentences. 	
<p>Identify and use different sentence types: declarative (makes a statement) interrogative (asks a question) imperative (gives a command) exclamatory (for example, "What a hit!")</p>	<p>L3.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. b. Form and use regular and irregular plural nouns. c. Use abstract nouns (e.g., childhood). d. Form and use regular and irregular verbs. e. Form and use the simple (e.g., I walked; I walk; I 	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>will walk) verb tenses.</p> <p>f. Ensure subject-verb and pronoun-antecedent agreement.*</p> <p>g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.</p> <p>h. Use coordinating and subordinating conjunctions.</p> <p>i. Produce simple, compound, and complex sentences.</p>	
<p>Know the following parts of speech and how they are used:</p> <p>nouns (for concrete nouns)</p> <p>pronouns (singular and plural)</p> <p>verbs: action verbs and auxiliary (helping) verbs</p> <p>adjectives (including articles: a before a consonant, an before a vowel, and the)</p> <p>adverbs</p>	<p>L3.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.</p> <p>b. Form and use regular and irregular plural nouns.</p> <p>c. Use abstract nouns (e.g., childhood).</p> <p>d. Form and use regular and irregular verbs.</p> <p>e. Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses.</p> <p>f. Ensure subject-verb and pronoun-antecedent agreement.*</p> <p>g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.</p> <p>h. Use coordinating and subordinating conjunctions.</p> <p>i. Produce simple, compound, and complex sentences.</p>	
<p>Know how to use the following punctuation:</p> <p>end punctuation: period, question mark, or exclamation point</p> <p>comma: between day and year when writing a date; between city and state in an address; in a series; after yes and no</p> <p>apostrophe: in contractions; in singular and plural possessive nouns</p>	<p>L3.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Capitalize appropriate words in titles.</p> <p>b. Use commas in addresses.</p> <p>c. Use commas and quotation marks in dialogue.</p> <p>d. Form and use possessives.</p> <p>e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, happiness).</p> <p>f. Use spelling patterns and generalizations (e.g.,</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.</p> <p>g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</p>	
Recognize and avoid the double negative.		
D. Vocabulary		
<p>Know what prefixes and suffixes are and how the following affect word meaning:</p> <p>Prefixes:</p> <p>re meaning “again” (as in reuse, refill)</p> <p>un meaning “not” (as in unfriendly, unpleasant)</p> <p>dis meaning “not” (as in dishonest, disobey)</p> <p>un meaning “opposite of” or “reversing an action” (as in untie, unlock)</p> <p>dis meaning “opposite of” or “reversing an action” (as in disappear, dismount)</p> <p>Suffixes:</p> <p>er and or (as in singer, painter, actor)</p> <p>less (as in careless, hopeless)</p> <p>ly (as in quickly, calmly)</p>	<p>RF3.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Identify and know the meaning of the most common prefixes and derivational suffixes.</p> <p>b. Decode words with common Latin suffixes.</p> <p>c. Decode multisyllable words.</p> <p>d. Read grade-appropriate irregularly spelled words.</p> <p>L3.4 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.</p> <p>a. Use sentence-level context as a clue to the meaning of a word or phrase.</p> <p>b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat).</p> <p>c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion).</p> <p>d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.</p> <p>L3.5 Demonstrate understanding of word relationships and nuances in word meanings.</p> <p>a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps).</p> <p>b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful).</p>	

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered).</p>	
<p>Know what homophones are (for example, by, buy; hole, whole) and correct usage of homophones that commonly cause problems: their, there, they're your, you're its, it's here, hear to, too, two</p>	<p>L3.4 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion). d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases. <p>L3.5 Demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps). b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered). 	
Recognize common abbreviations (for example, St., Rd., Mr., Mrs., Ms., Dr., U.S.A., ft., in., lb.).		
II. Poetry*		

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Adventures of Isabel (Ogden Nash)</p> <p>The Bee (Isaac Watts; see also below, “The Crocodile”)</p> <p>By Myself (Eloise Greenfield)</p> <p>Catch a Little Rhyme (Eve Merriam)</p> <p>The Crocodile (Lewis Carroll)</p> <p>Dream Variations (Langston Hughes)</p> <p>Eletelephony (Laura Richards)</p> <p>Father William (Lewis Carroll)</p> <p>First Thanksgiving of All (Nancy Byrd Turner)</p> <p>For want of a nail, the shoe was lost . . . (traditional)</p> <p>Jimmy Jet and His TV Set (Shel Silverstein)</p> <p>Knoxville, Tennessee (Nikki Giovanni)</p> <p>Trees (Sergeant Joyce Kilmer)</p>		
III. Fiction		
A. Stories*		
<p>Alice in Wonderland (Lewis Carroll)</p> <p>from The Arabian Nights:</p> <p>Aladdin and the Wonderful Lamp</p> <p>Ali Baba and the Forty Thieves</p> <p>The Hunting of the Great Bear (an Iroquois legend about the origin of the Big Dipper)</p> <p>The Husband Who Was to Mind the House (a Norse/English folktale, also known as “Gone is Gone”)</p> <p>The Little Match Girl (Hans Christian Andersen)</p> <p>The People Who Could Fly (an African American folktale)</p> <p>Three Words of Wisdom (a folktale from Mexico)</p> <p>William Tell</p> <p>selections from The Wind in the Willows: “The River Bank” and “The Open Road” (Kenneth Grahame)</p>		
Norse Mythology		

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Asgard (home of the gods) Valhalla Hel (underworld) Odin Thor trolls Norse gods and English names for days of the week: Tyr, Odin [Wodin], Thor, Frigg [Freya]		
More Myths and Legends of Ancient Greece and Rome Jason and the Golden Fleece Perseus and Medusa Cupid and Psyche The Sword of Damocles Damon and Pythias Androcles and the Lion Horatius at the Bridge		
C. Literary terms		
biography and autobiography		
Fiction and nonfiction		
IV. Sayings and Phrases		

Core Knowledge Sequence GRADE 3	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Actions speak louder than words. His bark is worse than his bite. Beat around the bush Beggars can't be choosers. Clean bill of health Cold shoulder A feather in your cap Last straw Let bygones be bygones. One rotten apple spoils the whole barrel. On its last legs Rule the roost The show must go on. Touch and go When in Rome do as the Romans do. Rome wasn't built in a day.</p>	<p>RL3.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.</p> <p>L3.5 Demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps). b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered). <p>L3.6 Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).</p>	
<p>*Reading: Text complexity and the growth of comprehension</p> <p>The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by grade “staircase” of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.</p> <p>(Common Core State Standards for ENGLISH LANGUAGE ARTS & Literacy in History/Social Studies, Science, and Technical Subjects, p. 8)</p>		

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing, Grammar, and Usage		
A. Writing and Research		
<p>Produce a variety of types of writing—including stories, reports, summaries, descriptions, poems, letters—with a coherent structure or story line.</p>	<p>W4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events. <p>W4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4 on pages 28 and 29.)</p> <p>W4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <ul style="list-style-type: none"> a. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”). b. Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”). <p>W4.10 Write routinely over extended time frames (time</p>	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p> <p>RL.4.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.</p> <p>RL.4.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).</p> <p>RL.4.5 Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g. verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.</p> <p>RI.4.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.</p> <p>RI.4.8 Explain how an author uses reasons and evidence to support particular points in a text.</p> <p>L.4.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ul style="list-style-type: none"> a. Choose words and phrases to convey ideas precisely.* b. Choose punctuation for effect.* c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). 	
<p>Know how to gather information from different sources (such as an encyclopedia, magazines, interviews, observations, atlas, on-line), and write short reports presenting the information in his or her own words, with attention to the following:</p> <ul style="list-style-type: none"> understanding the purpose and audience of the writing defining a main idea and sticking to it providing an introduction and conclusion organizing material in coherent paragraphs documenting sources in a rudimentary bibliography 	<p>W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related 	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>to the information or explanation presented.</p> <p>W4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.</p> <p>W4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.</p> <p>W4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”).</p> <p>b. Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).</p> <p>W4.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p> <p>RI4.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.</p>	
<p>Organize material in paragraphs and understand how to use a topic sentence</p> <p>How to develop a paragraph with examples and details that each new paragraph is indented</p>	<p>W4.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <p>a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer’s purpose.</p> <p>b. Provide reasons that are supported by facts and details.</p> <p>c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).</p> <p>d. Provide a concluding statement or section related to the opinion presented.</p> <p>W4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p>a. Introduce a topic clearly and group related</p>	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</p> <ul style="list-style-type: none"> b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. <p>W4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events. 	
B. Grammar and Usage		
<p>Understand what a complete sentence is, and identify subject and predicate in single-clause sentences</p> <p>Distinguish complete sentences from fragments</p> <p>Identify and correct run-on sentences</p>	<p>L4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why). b. Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses. c. Use modal auxiliaries (e.g., can, may, must) to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather 	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>than a red small bag).</p> <p>e. Form and use prepositional phrases.</p> <p>f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.*</p> <p>g. Correctly use frequently confused words (e.g., to, too, two; there, their).*</p>	
Identify subject and verb in a sentence and understand that they must agree.	<p>L4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why).</p> <p>b. Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses.</p> <p>c. Use modal auxiliaries (e.g., can, may, must) to convey various conditions.</p> <p>d. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag).</p> <p>e. Form and use prepositional phrases.</p> <p>f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.*</p> <p>g. Correctly use frequently confused words (e.g., to, too, two; there, their).*</p>	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Identify and use different sentence types: declarative, interrogative, imperative, exclamatory.</p> <p>Know the following parts of speech and how they are used: nouns, pronouns, verbs (action verbs and auxiliary verbs), adjectives (including articles), adverbs, conjunctions (and, but, or), interjections.</p>	<p>L4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why). b. Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses. c. Use modal auxiliaries (e.g., can, may, must) to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag). e. Form and use prepositional phrases. f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* g. Correctly use frequently confused words (e.g., to, too, two; there, their).* 	
<p>Know how to use the following punctuation: end punctuation: period, question mark, or exclamation point</p> <p>comma: between day and year when writing a date, between city and state in an address, in a series, after yes and no, before conjunctions that combine sentences, inside quotation marks in dialogue</p> <p>apostrophe: in contractions, in singular and plural possessive nouns</p> <p>quotation marks: in dialogue, for titles of poems, songs, short stories, magazine articles</p>	<p>L4.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Use correct capitalization. b. Use commas and quotation marks to mark direct speech and quotations from a text. c. Use a comma before a coordinating conjunction in a compound sentence. d. Spell grade-appropriate words correctly, consulting references as needed. 	
<p>Understand what synonyms and antonyms are, and provide synonyms or antonyms for given words.</p>	<p>L4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why). b. Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses. c. Use modal auxiliaries (e.g., can, may, must) to convey various conditions. d. Order adjectives within sentences according to 	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>conventional patterns (e.g., a small red bag rather than a red small bag).</p> <p>e. Form and use prepositional phrases.</p> <p>f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.*</p> <p>g. Correctly use frequently confused words (e.g., to, too, two; there, their).*</p> <p>L4.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context.</p> <p>b. Recognize and explain the meaning of common idioms, adages, and proverbs.</p> <p>c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).</p>	
Use underlining or italics for titles of books.	<p>L4.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use correct capitalization.</p> <p>b. Use commas and quotation marks to mark direct speech and quotations from a text.</p> <p>c. Use a comma before a coordinating conjunction in a compound sentence.</p> <p>d. Spell grade-appropriate words correctly, consulting references as needed.</p>	
<p>Know how the following prefixes and suffixes affect word meaning:</p> <p>Prefixes:</p> <p>im, in (as in impossible, incorrect)</p> <p>non (as in nonfiction, nonviolent)</p> <p>mis (as in misbehave, misspell)</p> <p>en (as in enable, endanger)</p> <p>pre (as in prehistoric, pregame)</p> <p>Suffixes:</p> <p>ily, y (as in easily, speedily, tricky)</p> <p>ful (as in thoughtful, wonderful)</p>	<p>RF4.3 Know and apply grade-level phonics and word analysis skills in decoding words</p> <p>a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.</p> <p>L4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why).</p> <p>b. Form and use the progressive (e.g., I was walking;</p>	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>able, ible (as in washable, flexible) ment (as in agreement, amazement)</p>	<p>I am walking; I will be walking) verb tenses.</p> <ul style="list-style-type: none"> c. Use modal auxiliaries (e.g., can, may, must) to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag). e. Form and use prepositional phrases. f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* g. Correctly use frequently confused words (e.g., to, too, two; there, their).* <p>L4.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. 	
<p>Review correct usage of problematic homophones: their, there, they're your, you're its, it's here, hear to, too, two</p>	<p>L4.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why). b. Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses. c. Use modal auxiliaries (e.g., can, may, must) to convey various conditions. d. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag). e. Form and use prepositional phrases. f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* 	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	g. Correctly use frequently confused words (e.g., to, too, two; there, their).*	
II. Poetry		
A. Poems*		
Afternoon on a Hill (Edna St. Vincent Millay) Clarence (Shel Silverstein) Clouds (Christina Rossetti) Concord Hymn (Ralph Waldo Emerson) Dreams (Langston Hughes) the drum (Nikki Giovanni) Fog (Carl Sandburg) George Washington (Rosemary and Stephen Vincent Benet) Humanity (Elma Stuckey) Life Doesn't Frighten Me (Maya Angelou) Monday's Child Is Fair of Face (traditional) Paul Revere's Ride (Henry Wadsworth Longfellow) The Pobble Who Has No Toes (Edward Lear) The Rhinoceros (Ogden Nash) Things (Eloise Greenfield) A Tragic Story (William Makepeace Thackeray)	RL4.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. RF4.4 Read with sufficient accuracy and fluency to support comprehension b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.	
B. Terms		
stanza and line	RI4.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.	
III. Fiction		
A. Stories*		

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>The Fire on the Mountain (an Ethiopian folktale) from Gulliver's Travels: Gulliver in Lilliput and Brobdingnag (Jonathan Swift)</p> <p>The Legend of Sleepy Hollow and Rip Van Winkle (Washington Irving)</p> <p>The Magic Brocade (a Chinese folktale)</p> <p>Pollyanna (Eleanor Porter)</p> <p>Robinson Crusoe (Daniel Defoe)</p> <p>Robin Hood</p> <p>St. George and the Dragon</p> <p>Treasure Island (Robert Louis Stevenson)</p>	<p>RL4.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RF4.4 Read with sufficient accuracy and fluency to support comprehension</p> <p>a. Read on-level text with purpose and understanding</p>	
B. Myths and Mythical Creatures*		
<p>Legends of King Arthur and the Knights of the Round Table</p> <p>How Arthur Became King</p> <p>The Sword in the Stone</p> <p>The Sword Excalibur</p> <p>Guinevere</p> <p>Merlin and the Lady of the Lake</p> <p>Sir Lancelot</p>	<p>RL4.4 Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).</p> <p>RL4.9 Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.</p> <p>RL4.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>RF4.4 Read with sufficient accuracy and fluency to support comprehension</p> <p>a. Read on-level text with purpose and understanding</p>	
C. Literary Terms		
<p>novel</p> <p>plot</p> <p>setting</p>	<p>RI4.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.</p>	
IV. Speeches*		

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Patrick Henry: "Give me liberty or give me death" Sojourner Truth: "Ain't I a woman?"	RI4.10 By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. RF4.4 Read with sufficient accuracy and fluency to support comprehension a. Read on-level text with purpose and understanding	
V. Sayings and Phrases		
An ounce of prevention is worth a pound of cure. As the crow flies Beauty is only skin deep. The bigger they are, the harder they fall. Birds of a feather flock together. Blow hot and cold Break the ice Bull in a china shop Bury the hatchet Can't hold a candle to Don't count your chickens before they hatch. Don't put all your eggs in one basket. Etc. Go to pot Half a loaf is better than none. Haste makes waste. Laugh and the world laughs with you. Lightning never strikes twice in the same place. Live and let live. Make ends meet. Make hay while the sun shines. Money burning a hole in your pocket Once in a blue moon One picture is worth a thousand words. On the warpath	RL4.4 Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). RI4.4 Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area. L4.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms). L4.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g. quizzed, whined, stammered) and that are basic to a particular topic (e.g. wildlife, conservation, and endangered when discussing animal preservation).	

Core Knowledge Sequence GRADE 4	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
RSVP Run-of-the-mill Seeing is believing. Shipshape Through thick and thin Timbuktu Two wrongs don't make a right. When it rains, it pours. You can lead a horse to water, but you can't make it drink.		
<p>*Reading: Text complexity and the growth of comprehension</p> <p>The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by grade “staircase” of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.</p> <p>(Common Core State Standards for ENGLISH LANGUAGE ARTS & Literacy in History/Social Studies, Science, and Technical Subjects, p. 8)</p>		

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing, Grammar, and Usage		
A. Writing and Research		
<p>Produce a variety of types of writing—including reports, summaries, letters, descriptions, research essays, essays that explain a process, stories, poems—with a coherent structure or story line.</p>	<p>W5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <ul style="list-style-type: none"> a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically). d. Provide a concluding statement or section related to the opinion presented. <p>W5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. <p>W5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, 	

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>description, and pacing, to develop experiences and events or show the responses of characters to situations.</p> <ul style="list-style-type: none"> c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events. <p>W5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 5 on pages 28 and 29.)</p> <p>W5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <ul style="list-style-type: none"> a. Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”). b. Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”). <p>W5.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p> <p>RL5.3 Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).</p> <p>RI5.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).</p> <p>L5.3 Use knowledge of language and its conventions</p>	

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>when writing, speaking, reading, or listening.</p> <ul style="list-style-type: none"> a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems. 	
<p>Know how to gather information from different sources (such as an encyclopedia, magazines, interviews, observations, atlas, on-line), and write short reports synthesizing information from at least three different sources, presenting the information in his or her own words, with attention to the following:</p> <p>understanding the purpose and audience of the writing</p> <p>defining a main idea and sticking to it</p> <p>providing an introduction and conclusion</p> <p>organizing material in coherent paragraphs</p> <p>illustrating points with relevant examples</p> <p>documenting sources in a rudimentary bibliography</p>	<p>W5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. <p>W5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p> <p>W5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.</p> <p>W5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <ul style="list-style-type: none"> a. Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”). b. Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support 	

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>which point[s]”).</p> <p>RI5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.</p> <p>RI5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.</p>	
B. Grammar and Usage		
Understand what a complete sentence is, and identify subject and predicate correct fragments and run-ons		
Identify subject and verb in a sentence and understand that they must agree.		
Know the following parts of speech and how they are used: nouns, verbs (action verbs and auxiliary verbs), adjectives (including articles), adverbs, conjunctions, interjections.	<p>L5.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. b. Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses. c. Use verb tense to convey various times, sequences, states, and conditions. d. Recognize and correct inappropriate shifts in verb tense.* e. Use correlative conjunctions (e.g., either/or, neither/nor). 	
Understand that pronouns must agree with their antecedents in case (nominative, objective, possessive), number, and gender.		
Correctly use punctuation studied in earlier grades, as well as the colon before a list, commas with an appositive	<p>L5.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory 	

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>element from the rest of the sentence.</p> <ul style="list-style-type: none"> c. Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?). d. Use underlining, quotation marks, or italics to indicate titles of works. e. Spell grade-appropriate words correctly, consulting references as needed. 	
Use underlining or italics for titles of books.	<p>L5.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory element from the rest of the sentence. c. Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?). d. Use underlining, quotation marks, or italics to indicate titles of works. e. Spell grade-appropriate words correctly, consulting references as needed. 	
C. Vocabulary		
<p>Know how the following prefixes and suffixes affect word meaning:</p> <p>Prefixes:</p> <p>anti (as in antisocial, antibacterial) inter (as in interstate)</p> <p>co (as in coeducation, co-captain)</p> <p>mid (as in midnight, Midwest)</p> <p>fore (as in forefather, foresee) post (as in postseason, postwar)</p> <p>il, ir (as in illegal, irregular) semi (as in semicircle, semiprecious)</p> <p>Suffixes:</p>	<p>RF5.3 Know and apply grade-level phonics and word analysis skills in decoding words</p> <ul style="list-style-type: none"> a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. <p>L5.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. 	

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
ist (as in artist, pianist) ish (as in stylish, foolish) ness (as in forgiveness, happiness) tion, sion (as in relation, extension)	b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	
II. Poetry		
A. Poems*		
The Arrow And The Song (Henry Wadsworth Longfellow) Barbara Frietchie (John Greenleaf Whittier) Battle Hymn of the Republic (Julia Ward Howe) A bird came down the walk (Emily Dickinson) Casey at the Bat (Ernest Lawrence Thayer) The Eagle (Alfred Lord Tennyson) I Hear America Singing (Walt Whitman) I like to see it lap the miles (Emily Dickinson) I, too, sing America (Langston Hughes) Jabberwocky (Lewis Carroll) Narcissa (Gwendolyn Brooks) O Captain! My Captain! (Walt Whitman) A Poison Tree (William Blake) The Road Not Taken (Robert Frost) The Snowstorm (Ralph Waldo Emerson) Some Opposites (Richard Wilbur) The Tiger (William Blake) A Wise Old Owl (Edward Hersey Richards)	RL5.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently. RF5.4 Read with sufficient accuracy and fluency to support comprehension b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. *Specifically listed in CCSS	
B. Terms		

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
onomatopoeia alliteration	RI5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	
III. Fiction and Drama		
A. Stories*		
The Adventures of Tom Sawyer (Mark Twain) episodes from Don Quixote (Miguel de Cervantes) Little Women (Part First) (Louisa May Alcott) Narrative of the Life of Frederick Douglass (Frederick Douglass) The Secret Garden (Frances Hodgson Burnett) Tales of Sherlock Holmes, including "The Red-Headed League" (Arthur Conan Doyle)	RL5.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently. RF5.4 Read with sufficient accuracy and fluency to support comprehension a. Read on-level text with purpose and understanding	
B. Drama*		
A Midsummer Night's Dream (William Shakespeare)	RL5.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently. RF5.4 Read with sufficient accuracy and fluency to support comprehension a. Read on-level text with purpose and understanding	
Terms: tragedy and comedy act, scene Globe Theater	RL5.5 Explain how a series of chapters, scenes, or stanzas fit together to provide the overall structure of a particular story, drama, or poem. RI5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	
C. Myths and Legends*		

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>A Tale of the Oki Islands (a legend from Japan, also known as “The Samurai’s Daughter”)</p> <p>Morning Star and Scarface: the Sun Dance (a Plains Native American legend, also known as “The Legend of Scarface”)</p> <p>Native American trickster stories (for example, tales of Coyote, Raven, or Grandmother Spider)</p>	<p>RL5.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.</p> <p>RF5.4 Read with sufficient accuracy and fluency to support comprehension</p> <p>a. Read on-level text with purpose and understanding</p>	
D. Literary Terms		
Pen name (pseudonym)		
<p>Literal and figurative language</p> <p>imagery</p> <p>metaphor and simile</p> <p>symbol</p> <p>personification</p>	<p>RL5.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.</p> <p>RL5.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).</p>	
IV. Speeches*		
<p>Abraham Lincoln: The Gettysburg Address</p> <p>Chief Joseph (Highh’moot Tooyalakekt): “I will fight no more forever”</p>	<p>RI5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.</p>	
V. Sayings and Phrases		
<p>Birthday suit</p> <p>Bite the hand that feeds you.</p> <p>Chip on your shoulder</p> <p>Count your blessings.</p> <p>Eat crow</p> <p>Eleventh hour</p> <p>Eureka!</p> <p>Every cloud has a silver lining.</p> <p>Few and far between</p> <p>Forty winks</p> <p>The grass is always greener on the other</p>	<p>RI5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.</p> <p>L5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figurative language, including similes and metaphors, in context.</p> <p>b. Recognize and explain the meaning of common idioms, adages, and proverbs.</p> <p>c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.</p> <p>L5.6 Acquire and use accurately grade-appropriate</p>	

Core Knowledge Sequence GRADE 5	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>side (of the hill). To kill two birds with one stone Lock, stock and barrel Make a mountain out of a molehill A miss is as good as a mile. It's never too late to mend. Out of the frying pan and into the fire. A penny saved is a penny earned. Read between the lines. Sit on the fence Steal his/her thunder Take the bull by the horns. Till the cows come home Time heals all wounds. Tom, Dick and Harry Vice versa A watched pot never boils. Well begun is half done. What will be will be</p>	<p>general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).</p>	
<p>*Reading: Text complexity and the growth of comprehension The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by grade “staircase” of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts. (Common Core State Standards for ENGLISH LANGUAGE ARTS & Literacy in History/Social Studies, Science, and Technical Subjects, p. 8)</p>		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing Grammar and Usage		
A. Writing and Research		
Learn strategies and conventions for writing a persuasive essay, with attention to defining a thesis (that is, a central proposition, a main idea) supporting the thesis with evidence, examples, and reasoning distinguishing evidence from opinion anticipating and answering counter-arguments maintaining a reasonable tone		
Write a research essay, with attention to asking open-ended questions gathering relevant data through library and field research summarizing, paraphrasing, and quoting accurately when taking notes defining a thesis organizing with an outline integrating quotations from sources acknowledging sources and avoiding plagiarism preparing a bibliography		
Write a standard business letter.		
B. Speaking and Listening		
Participate civilly and productively in group discussions.		<p>SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on <i>grade 4 topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <ul style="list-style-type: none"> a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
		<p>link to the remarks of others.</p> <p>d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</p> <p>SL5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</p> <p>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</p>
Give a short speech to the class that is well-organized and well-supported.		<p>SL4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>SL5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p>
Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.		<p>SL4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 on pages 28 and 29 for specific expectations.)</p> <p>SL5.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 on pages 28 and 29 for specific expectations.)</p>

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
C. Grammar and Usage		
Understand what a complete sentence is, and identify subject and predicate, identify independent and dependent clauses, correct fragments and run-ons		
Identify different sentence types, and write for variety by using simple sentences compound sentences complex sentences compound-complex sentences		
Correctly use punctuation introduced in earlier grades, and learn how to use a semicolon or comma with <i>and</i> , <i>but</i> , or <i>or</i> to separate the sentences that form a compound sentence.		
Correctly use punctuation introduced in earlier grades, and learn how to use a semicolon or comma with <i>and</i> , <i>but</i> , or <i>or</i> to separate the sentences that form a compound sentence.		
Recognize the following troublesome verbs and how to use them correctly: sit, set rise, raise lie, lay		
Correctly use the following: good / well between / among bring / take accept / except fewer / less like / as affect / effect who / whom imply / infer principle / principal		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
their / there / they're		
D. Spelling		
Review spelling rules for use of <i>ie</i> and <i>ei</i> ; for adding prefixes and suffixes		
Continue work with spelling, with special attention to commonly misspelled words, including: acquaintance amateur analyze answer athlete Britain characteristic committee conscious cooperate criticize dependent develop embarrassed exaggerate exercise fulfill gymnasium hypocrite innocence interrupt license marriage minimum naturally occurrence parallel		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
peasant philosopher possess privilege receipt recommendation repetition restaurant rhythm separate similar sophomore substitute success suspicion tragedy woman writing		
E. Vocabulary		
<i>Latin/Greek Word Meaning Examples</i> annus [L] year annual, anniversary ante [L] before antebellum, antecedent aqua [L] water aquarium astron [G] star astronaut, astronomy bi [L] two bisect, bipartisan bios [G] life biology, biography centum [L] hundred cent, percent decem [L] ten decade, decimal dico, dictum [L] say, thing said dictation, dictionary duo [G, L] two duplicate ge [G] earth geology, geography		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>hydor [G] water hydrant, hydroelectric magnus [L] large, great magnificent, magnify mega [G] large, great megaphone, megalomania mikros [G] small microscope, microfilm minus [L] smaller diminish, minor monos [G] single monologue, monarch, monopoly omnis [L] all omnipotent, omniscient phileo [G] to love philosophy, philanthropist phone [G] sound, voice phonograph, telephone photo [from G <i>phos</i>/light photograph, photocopy poly [G] many polygon post [L] after posthumous, posterity pre [L] before predict, prepare primus [L] first primary, primitive protos [G] first prototype, protozoa psyche[G] soul, mind psychology quartus [L] fourth quadrant, quarter tele [G] at a distance telephone, television, telepathy thermos [G] heat thermometer, thermostat tri [G, L] three trilogy, triangle unus [L] one unanimous, unilateral video, visum [L] see, seen evident, visual vita [L] life vitality, vitamin</p>		
II. Poetry		
A. Poems		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>All the world's a stage [from <i>As You Like It</i>] (William Shakespeare)</p> <p>Apostrophe to the Ocean [from <i>Childe Harold's Pilgrimage</i>, Canto 4, Nos. 178-184] (George Gordon Byron)</p> <p>I Wandered Lonely as a Cloud (William Wordsworth)</p> <p>If (Rudyard Kipling)</p> <p>Mother to Son (Langston Hughes)</p> <p>Lift Ev'ry Voice and Sing (James Weldon Johnson)</p> <p>A narrow fellow in the grass (Emily Dickinson)</p> <p>A Psalm of Life (Henry Wadsworth Longfellow)</p> <p>The Raven (Edgar Allan Poe)</p> <p>A Song of Greatness (a Chippewa song, trans. Mary Austin)</p> <p>Stopping by Woods on a Snowy Evening (Robert Frost)</p> <p>Sympathy (Paul Laurence Dunbar)</p> <p>There is no frigate like a book (Emily Dickinson)</p> <p>The Walloping Window-blind (Charles E. Carryl)</p> <p>Woman Work (Maya Angelou)</p>		
B. Terms		
meter		
iamb		
couplet		
rhyme scheme		
free verse		
III. Fiction and Drama		
A. Stories		
<p><i>The Iliad</i> and <i>The Odyssey</i> (Homer)</p> <p><i>The Prince and the Pauper</i> (Mark Twain)</p>		
B. Drama		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<i>Julius Caesar</i> (William Shakespeare)		
C. Classical Mythology		
Apollo and Daphne Orpheus and Eurydice Narcissus and Echo Pygmalion and Galatea		
D. Literary Terms		
Epic		
Literal and figurative language (review from grade 5) imagery metaphor and simile symbol personification		
IV. Sayings and Phrases		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p> All for one and one for all. All's well that ends well. Bee in your bonnet The best-laid plans of mice and men oft go awry. A bird in the hand is worth two in the bush. Bite the dust Catch-as-catch-can Don't cut off your nose to spite your face. Don't lock the stable door after the horse is stolen. Don't look a gift horse in the mouth. Eat humble pie A fool and his money are soon parted. A friend in need is a friend indeed. Give the devil his due. Good fences make good neighbors. He who hesitates is lost. He who laughs last laughs best. Hitch your wagon to a star. If wishes were horses, beggars would ride. The leopard doesn't change his spots. Little strokes fell great oaks. Money is the root of all evil. Necessity is the mother of invention. It's never over till it's over. Nose out of joint Nothing will come of nothing. Once bitten, twice shy. On tenterhooks Pot calling the kettle black Procrastination is the thief of time. The proof of the pudding is in the eating. RIP The road to hell is paved with good intentions. The road to hell is paved with good intentions. Rome wasn't built in a day. Rule of thumb A stitch in time saves nine. Strike while the iron is hot. Tempest in a teapot Tenderfoot </p>	(DRAFT)	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing, Grammar, and Usage		
A. Writing and Research		
Expository writing: Write nonfiction essays that describe, narrate, persuade, and compare and contrast.		
Write research essays, with attention to asking open-ended questions gathering relevant data through library and field research summarizing, paraphrasing, and quoting accurately when taking notes defining a thesis (that is, a central proposition, a main idea) organizing with an outline integrating quotations from sources acknowledging sources and avoiding plagiarism preparing a bibliography		
B. Speaking and Listening		
Participate civilly and productively in group discussions.		
Give a short speech to the class that is well-organized and well-supported.		
Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.		
C. Grammar		
Parts of the Sentence		
Prepositional phrases Identify as adjectival or adverbial Identify word(s) modified by the prepositional phrase Object of preposition (note that pronouns are in objective case)		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Punctuation of prepositional phrases		
Subject and verb Find complete subject and complete predicate Identify simple subject and simple verb (after eliminating prepositional phrases): in statements in questions in commands (you understood) with there and here Auxiliary verbs Noun of direct address Subject-verb agreement: with compound subjects with compound subjects joined by <i>or</i> with indefinite pronouns (for example, everyone, anyone, some, all)		
Complements Find direct and indirect objects Review linking vs. action verbs Predicate nominative Predicate adjective		
Appositives Identify and tell which noun is renamed Use of commas with appositive phrases		
Participles Identify past, present participles Identify participial phrases Find the noun modified Commas with participial phrases		
Gerunds and gerund phrases Identify and tell its use in the sentence (subject, direct object, indirect object, appositive, predicate nominative, object of preposition)		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Infinitives and infinitive phrases Adjective and adverb: find the word it modifies Noun: tell its use in the sentence		
Clauses		
Review: sentences classified by structure Simple; compound (coordinating conjunctions v. conjunctive adverbs); complex; compound-complex		
Review independent (main) v. dependent (subordinate) clauses		
Kinds of dependent clauses Adjective clauses Identify and tell noun modified Introductory words: relative pronouns, relative adverbs (where, when) Implied "that" Commas with nonrestrictive (nonessential) adjective clause Adverb clauses Identify and tell the word(s) modified Subordinating conjunctions (for example, because, although, when, since, before, after, as soon as, where) Comma after introductory adverbial clause Noun clauses Identify and tell use in the sentence (subject, predicate nominative, direct object, indirect object, object of preposition, appositive, objective complement, noun of direct address)		
D. Spelling		
Continue work with spelling, with special attention to commonly misspelled words, including: achievement		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
address analysis anonymous argument beginning business college conscience control criticism despise definite description doesn't environment excellent existence grammar hypocrisy immediately interpret knowledge lieutenant medieval muscle muscular occasionally offense particularly persuade politician prejudice probably recognize remembrance		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
responsibility rhyme sacrifice scholar shepherd sincerely sponsor succeed surprise tendency thorough truly women written		
E. Vocabulary		
<i>Latin/Greek Word Meaning Examples</i> ab [L] away from abnormal, absent ad [L] to, forward advocate, advance amo [L] love amiable, amorous audio [L] hear audience, inaudible auto [G] self automobile, autocrat bene [L] good/well beneficial, benefit circum [L] around circulate, circumference celer [L] swift accelerate chronos [G] time chronological cresco [L] grow increase, decrease cum [L] with compose, accommodate curro [L] run current, cursive, course demos [G] people democracy, epidemic erro [L] wander, stray error, erratic ex [L] from, out of exclaim, exhaust extra [L] outside extravagant, extraordinary facio [L] make effect, affect		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
fero [L] bring, bear confer, defer fragilis [L] breakable fragile, fragment finis [L] end confine, finality homos [G] same homogenous hyper [G] over, beyond hypertension, hyperactive hypo [G] under, beneath hypodermic, hypothesis jacio [L] throw eject, interject judex [L] a judge judge, prejudice juro [L] swear jury, perjury makros [G] long macrocosm malus [L] bad malady, malice manus [L] hand manufacture, manuscript morphe [G] form metamorphosis, amorphous neos [G] new neophyte pan [G] all panorama, panacea pedis [L] foot pedal, biped polis [G] city metropolis pro [L] before, for proceed, propose, prodigy pseudos [G] a lie pseudonym re [L] back, again react, reply, revise scribo[L] write scribble, inscribe sentio [L] feel (with senses) sensation, sensual, sentry sequor [L] follow subsequent, sequel solvo [L] loosen solution, dissolve, solvent specto [L] look at inspect, speculate, perspective strictus [L] drawn tight strict, constricted sub [L] under subdue, subject, subtract super [L] above superficial, superlative, supreme syn [G] together synchronize, synthesis tendo [L] stretch tension, intense, detention teneo [L] hold, keep contain, content, maintain trans [L] across transfer, transcontinental valeo [L] be strong prevail, valiant venio [L] come event, advent		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
voco [L] call vocal, voice, vociferous volvo [L] revolve evolve, revolution zoon, zoe [G] animal, life zoology, protozoa		
II. Poetry		
A. Poems		
Annabel Lee (Edgar Allan Poe) Because I could not stop for Death (Emily Dickinson) The Charge of the Light Brigade (Alfred Lord Tennyson) The Chimney Sweeper (both versions from <i>The Songs of Innocence</i> and <i>The Songs of Experience</i> ; William Blake) The Cremation of Sam McGee (Robert Service) Dulce et Decorum Est (Wilfred Owen) Fire and Ice; Nothing Gold Can Stay (Robert Frost) Heritage (Countee Cullen) Macavity: The Mystery Cat (T.S. Eliot) The Negro Speaks of Rivers; Harlem; Life is Fine (Langston Hughes) This Is Just to Say; The Red Wheelbarrow (William Carlos Williams)		
B. Elements of Poetry		
Review: meter, iamb, rhyme scheme, free verse, couplet, onomatopoeia, alliteration		
Stanzas and refrains		RL5.5 Explain how a series of chapters, scenes, or stanzas fit together to provide the overall structure of a particular story, drama, or poem.
Forms ballad sonnet lyric narrative limerick		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
haiku		
Types of rhyme: end, internal, slant, eye		
III. Fiction and Drama		
A. Short Stories		
“The Gift of the Magi” (O. Henry) “The Necklace” (Guy de Maupassant) “The Secret Life of Walter Mitty” (James Thurber) “The Tell-Tale Heart”; “The Purloined Letter” (Edgar Allan Poe)		
B. Novels/Novellas		
<i>The Call of the Wild</i> (Jack London) <i>Dr. Jekyll and Mr. Hyde</i> (Robert Louis Stevenson)		
C. Elements of Fiction		
Review aspects of plot and setting		
Theme		
Point of view in narration omniscient narrator unreliable narrator third person limited first person		RL4.6 Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. RI4.6 Compare and contrast a firsthand and second hand account of the same event or topic; describe the differences in focus and the information provided. RL5.6 Describe how a narrator’s or speaker’s point of view influences how events are described. RI5.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
Conflict: external and internal		
Suspense and climax		
D. Essays and Speeches		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
"Shooting an Elephant" (George Orwell) "The Night the Bed Fell" (James Thurber) "Declaration of War on Japan" (Franklin D. Roosevelt)		
E. Autobiography		
<i>Diary of a Young Girl</i> (Anne Frank)		
F. Drama		
<i>Cyrano de Bergerac</i> (Edmond Rostand)		
Elements of drama Tragedy and comedy (review) Aspects of conflict, suspense, and characterization Soliloquies and asides		
G. Literary Terms		
Irony: verbal, situational, dramatic		
Flashbacks and foreshadowing		
Hyperbole; oxymoron; parody		
IV. Foreign Phrases Commonly Used in English		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>ad hoc - concerned with a particular purpose; improvised [literally, "to the thing"]</p> <p>bona fides - good faith; sincere, involving no deceit or fraud</p> <p>carpe diem - seize the day, enjoy the present</p> <p>caveat emptor - let the buyer beware, buy at your own risk</p> <p>de facto - in reality, actually existing</p> <p>in extremis - in extreme circumstances, especially at the point of death</p> <p>in medias res - in the midst of things</p> <p>in toto - altogether, entirely</p> <p>modus operandi - a method of procedure</p> <p>modus vivendi - a way of living, getting along</p> <p>persona non grata - an unacceptable or unwelcome person</p> <p>prima facie - at first view, apparently; self-evident</p> <p>pro bono publico - for the public good</p> <p>pro forma - for the sake of form, carried out as a matter of formality</p> <p>quid pro quo - something given or received in exchange for something else</p> <p>requiescat in pace, R I P - may he or she rest in peace [seen on tombstones]</p> <p>sic transit gloria mundi - thus passes away the glory of the world</p> <p>sine qua non - something absolutely indispensable [literally, "without which not"]</p> <p>sub rosa – secretly</p>		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing, Grammar, and Usage		
A. Writing and Research		
Expository writing: Write essays that describe, narrate, persuade, and compare and contrast.		
Write research essays, with attention to asking open-ended questions gathering relevant data through library and field research summarizing, paraphrasing, and quoting accurately when taking notes defining a thesis (that is, a central proposition, a main idea) organizing with an outline integrating quotations from sources acknowledging sources and avoiding plagiarism preparing a bibliography		
B. Speaking and Listening		
Participate civilly and productively in group discussions.		
Give a short speech to the class that is well-organized and well-supported.		
Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.		
C. Grammar		
Punctuation		
Review punctuation based on sentence structure, including semi-colons commas with phrases and clauses		
Review other punctuation, including punctuation of quotations, dialogue		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
use of parentheses hyphens dashes colons italics apostrophes		
Misplace Modifiers		
Phrases and clauses go as near as possible to the word(s) they modify. Dangling modifiers Two-way modifiers		
Parallelism		
Parallelism is expressing ideas of equal importance using the same grammatical constructions.		
Kinds of parallelism coordinate (using coordinating conjunctions <i>and</i> , <i>but</i> , <i>or</i> , <i>nor</i> , <i>yet</i>) compared/contrasted correlative (both . . . and, either . . . or, neither . . . nor, not only . . . but also)		
Correcting faulty parallelism repeating words (articles, prepositions, pronouns) to maintain parallelism completing parallel construction revising sentences using parallel structure (for example, using all gerund phrases, or all noun clauses)		
Sentence Variety		
Review sentences classified by structure: simple, compound, complex, compound-complex.		
Varying sentence length and structure to avoid monotony		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Varying sentence openings		
D. Spelling		
<p>Continue work with spelling, with special attention to commonly misspelled words, including:</p> <p>absence accommodate analysis attendance believe bureau capitol colonel committee correspondence curiosity defendant dessert desperate dissatisfied extraordinary fascinating foreign guarantee hygiene independence laboratory library lightning maintenance mileage necessary occurrence permanence</p>		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
physician prairie sergeant souvenir straight technique temporary vacuum whether		
E. Vocabulary		
aequus [L] equal equal, equation ago, acta [L] do, things done agent, enact, transact anthropos [G] man, human being anthropology, misanthrope ars [L] art artist, artifact brevis [L] short brevity, abbreviate canto [L] sing chant, cantor caput [L] head captain, decapitate clino [L] to lean, bend incline, decline cognito [L] know cognizant, recognize copia [L] plenty copy, copious credo [L] believe credible, incredulous culpa [L] blame culpable, culprit dominus [L] a lord, master dominate, dominion duco [L] lead abduct, introduce fido [L] to trust, believe confide, infidel fundo, fustum [L] pour, thing poured effusive, transfusion genus [L] kind, origin generic, congenital holos [G] whole holistic, catholic jungo [L] join junction, conjugal lego, lectum [L] read, thing read intellect, legible locus [L] a place local, dislocate loquor [L] speak eloquent, loquacious		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p> medius [L] middle mediate, mediocrity missio [L] a sending emissary, mission mорий [L] die mortal nego [L] deny negate nihil [L] nothing nihilism, annihilate occido [L] kill homicide, suicide pathos[G] suffering, feeling sympathy, apathy pendo [L] weigh, hang depend, pendant per [L] through perceive, persist, persevere phobos [G] fear phobia, claustrophobia plenus [L] full plenty, plenary positum [L] placed position, opposite porto [L] carry transport, export possum [L] be able possible, potent pugno [L] to fight impugn, pugnacious punctum [L] point punctual, punctuation rego [L] to rule regular, regency sanguis [L] blood sanguine satis [L] enough satisfy scio [L] know science, conscious solus [L] alone solo, desolate sonus [L] a sound unison, consonant sophos [G] wise philosophy, sophomore spiritus [L] breath inspire, spirit totus [L] whole totalitarianism tractum [L] drawn, pulled distract, tractor usus [L] use abuse, utensil vacuus [L] empty evacuate, vacuum verbum [L] word verbal verto [L] turn avert, convert, anniversary via [L] way, road deviate, viaduct </p>		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing Grammar and Usage		
A. Writing and Research		
<p>Learn strategies and conventions for writing a persuasive essay, with attention to:</p> <ul style="list-style-type: none"> defining a thesis (that is, a central proposition, a main idea) supporting the thesis with evidence, examples, and reasoning distinguishing evidence from opinion anticipating and answering counter-arguments maintaining a reasonable tone 	<p>W.6.1 – (see also <i>WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <ul style="list-style-type: none"> a. Introduce claim(s) and organize the reasons and evidence clearly. b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from the argument presented. <p>W.6.2 – (see also <i>WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ul style="list-style-type: none"> a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented. 	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>W.6.4 - (<i>see also WHST.6-8.4</i>) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in [Grade 6 writing] standards 1–3 above.)</p> <p>W.6.8 - (<i>see also WHST.6-8.8</i>) Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.</p> <p>W.6.9 - (<i>see also WHST.6-8.9</i>) Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 6 Reading standards</i> to literature (e.g., “Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics”).</p> <p>b. Apply <i>grade 6 Reading standards</i> to literary nonfiction (e.g., “Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not”).</p> <p>W.6.10 - (<i>see also WHST.6-8.10</i>) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p> <p>RI.6.2 - (<i>see also RH.6-8.2 and RST.6-8.2</i>) Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p>L.6.3 - Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>b. Maintain consistency in style and tone.</p>	
Write a research essay, with attention to: asking open-ended questions gathering relevant data through library and field	<p>W.6.1 - (<i>see also WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <p>a. Introduce claim(s) and organize the reasons and evidence clearly.</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>research summarizing, paraphrasing, and quoting accurately when taking notes defining a thesis</p> <p>organizing with an outline</p> <p>integrating quotations from sources</p> <p>acknowledging sources and avoiding plagiarism</p> <p>preparing a bibliography</p>	<p>b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.</p> <p>c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.</p> <p>d. Establish and maintain a formal style.</p> <p>e. Provide a concluding statement or section that follows from the argument presented.</p> <p>W.6.2 - (<i>see also WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</p> <p>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</p> <p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p> <p>e. Establish and maintain a formal style.</p> <p>f. Provide a concluding statement or section that follows from the information or explanation presented.</p> <p>W.6.4 - (<i>see also WHST.6-8.4</i>) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in [Grade 6 writing] standards 1–3 above.)</p> <p>W.6.5 - (<i>see also WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 6 on page 52.)</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>W.6.6 - (<i>see also WHST.6-8.6</i>) Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.</p> <p>W.6.7 - (<i>see also WHST.6-8.7</i>) Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.</p> <p>W.6.8 - (<i>see also WHST.6-8.8</i>) Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.</p> <p>W.6.9 - (<i>see also WHST.6-8.9</i>) Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 6 Reading standards</i> to literature (e.g., “Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics”).</p> <p>b. Apply <i>grade 6 Reading standards</i> to literary nonfiction (e.g., “Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not”).</p> <p>W.6.10 - (<i>see also WHST.6-8.10</i>) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p> <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
Write a standard business letter.	<p>W.6.1 - (<i>see also WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <p>a. Introduce claim(s) and organize the reasons and evidence clearly.</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.</p> <p>c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.</p> <p>d. Establish and maintain a formal style.</p> <p>e. Provide a concluding statement or section that follows from the argument presented.</p> <p>W.6.2 - (see also <i>WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p>a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</p> <p>c. Use appropriate transitions to clarify the relationships among ideas and concepts.</p> <p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p> <p>e. Establish and maintain a formal style.</p> <p>f. Provide a concluding statement or section that follows from the information or explanation presented.</p> <p>W.6.3 - Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <p>a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</p> <p>b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.</p> <p>c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>frame or setting to another.</p> <p>d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.</p> <p>e. Provide a conclusion that follows from the narrated experiences or events.</p> <p>W.6.4 - (<i>see also WHST.6-8.4</i>) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in [Grade 6 writing] standards 1–3 above.)</p> <p>W.6.5 - (<i>see also WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 6 on page 52.)</p> <p>W.6.6 - (<i>see also WHST.6-8.6</i>) Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.</p> <p>W.6.10 - (<i>see also WHST.6-8.10</i>) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
B. Speaking and Listening		
Participate civilly and productively in group discussions.	<p>SL.6.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher- led) with diverse partners on <i>grade 6 topics, texts, and issues</i>, building on others' ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</p> <p>b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</p> <p>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</p> <p>SL.6.2 - Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.</p> <p>SL.6.3 - Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.</p>	
Give a short speech to the class that is well-organized and well-supported.	<p>SL.6.4 - Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p>SL.6.5 - Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p>	
Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.	<p>SL.6.6 - Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 on page 52 for specific expectations.)</p> <p>L.6.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Ensure that pronouns are in the proper case (subjective, objective, possessive). b. Use intensive pronouns (e.g., <i>myself</i>, <i>ourselves</i>). c. Recognize and correct inappropriate shifts in pronoun number and person.* d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language. 	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>L.6.3 - Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ul style="list-style-type: none"> a. Vary sentence patterns for meaning, reader/listener interest, and style. b. Maintain consistency in style and tone. <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
C. Grammar and Usage		
Understand what a complete sentence is, and identify subject and predicate, identify independent and dependent clauses, correct fragments and run-ons		<p>L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Explain the function of phrases and clauses in general and their function in specific sentences. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.
Identify different sentence types, and write for variety by using simple sentences compound sentences complex sentences compound-complex sentences		<p>L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Explain the function of phrases and clauses in general and their function in specific sentences. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.
Correctly use punctuation introduced in earlier grades, and learn how to use a semicolon or comma with <i>and</i> , <i>but</i> , or <i>or</i> to separate the sentences that form a compound sentence.	<p>L.6.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Use punctuation (commas, parentheses, dashes) to set 	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	off nonrestrictive/parenthetical elements.	
Recognize the following troublesome verbs and how to use them correctly: sit, set rise, raise lie, lay	L.6.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i> , choosing flexibly from a range of strategies. c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.	
Correctly use the following: good / well between / among bring / take accept / except fewer / less like / as affect / effect who / whom imply / infer principle / principal their / there / they're	L.6.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Spell correctly. L.6.5 - Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>stingy, scrimping, economical, un wasteful, thrifty</i>). L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
D. Spelling		
Review spelling rules for use of <i>ie</i> and <i>ei</i> ; for adding prefixes and suffixes	L.6.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Spell correctly.	
Continue work with spelling, with special attention to commonly misspelled words, including: acquaintance amateur analyze answer athlete Britain	L.6.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Spell correctly. L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases;	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
characteristic committee conscious criticize cooperate dependent develop embarrassed exaggerate exercise fulfill hypocrite gymnasium innocence interrupt marriage license minimum naturally occurrence parallel peasant philosopher possess privilege receipt recommendation repetition restaurant rhythm separate similar sophomore substitute success suspicion tragedy woman writing	gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
E. Vocabulary		
<i>Latin/Greek Word—Meaning—Examples</i> annus [L]—year—annual , anniversary ante [L]—before—antebellum, antecedent aqua [L]—water—aquarium astron [G—star—astronaut, astronomy bi [L]—two—bisect, bipartisan bios [G]—life —biology, biography centum [L]—hundred—cent, percent decem [L]—ten—decade, decimal dico, dictum [L]—say, thing said—dictation, dictionary	L.6.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i> , choosing flexibly from a range of strategies. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>).	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
duo [G, L]—two—duplicate ge [G]—earth—geology, geography hydor [G]—water—hydrant, hydroelectric magnus [L]—large, great—magnificent, magnify mega [G]—large, great—megaphone, megalomania mikros [G]—small—microscope, microfilm minus [L]—smaller—diminish, minor monos [G] —single—monologue, monarch, monopoly omnis [L] —all—omnipotent, omniscient phileo [G] —to love—philosophy, philanthropist phone [G] —sound, voice—phonograph, telephone photo [from G <i>phos</i>]—light—photograph, photocopy poly [G] —many—polygon post [L] —after—posthumous, posterity pre [L] —before—predict, prepare primus [L] —first—primary, primitive protos [G] —first—prototype, protozoa psyche[G] —soul, mind—psychology quartus [L] —fourth—quadrant, quarter tele [G] —at a distance—telephone, television, telepathy thermos [G] —heat—thermometer, thermostat tri [G, L] —three—trilogy, triangle unus [L] —one—unanimous, unilateral video, visum [L] —see, seen—evident, visual vita [L] —life—vitality, vitamin		
II. Poetry		
A. Poems		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>All the world's a stage [from <i>As You Like It</i>] (William Shakespeare)</p> <p>Apostrophe to the Ocean [from <i>Childe Harold's Pilgrimage</i>, Canto 4, Nos. 178-184] (George Gordon Byron)</p> <p>I Wandered Lonely as a Cloud (William Wordsworth)</p> <p>If (Rudyard Kipling)</p> <p>Mother to Son (Langston Hughes)</p> <p>Lift Ev'ry Voice and Sing (James Weldon Johnson)</p> <p>A narrow fellow in the grass (Emily Dickinson)</p> <p>A Psalm of Life (Henry Wadsworth Longfellow)</p> <p>The Raven (Edgar Allan Poe)</p> <p>A Song of Greatness (a Chippewa song, trans. Mary Austin)</p> <p>Stopping by Woods on a Snowy Evening (Robert Frost)</p> <p>Sympathy (Paul Laurence Dunbar)</p> <p>There is no frigate like a book (Emily Dickinson)</p> <p>The Walloping Window-blind (Charles E. Carryl)</p> <p>Woman Work (Maya Angelou)</p>	<p>RL.6.1 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.6.2 – Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p>RL.6.3 – Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.</p> <p>RL.6.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>RL.6.5 – Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.</p> <p>RL.6.6 – Explain how an author develops the point of view of the narrator or speaker in a text.</p> <p>RL.6.7 – Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.</p> <p>RL.6.9 – Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p> <p>RL.6.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.6.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i>, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>).</p> <p>c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.6.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., personification) in context.</p> <p>b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>stingy, scrimping, economical, un wasteful, thrifty</i>).</p>	
B. Terms		

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
meter iamb couplet rhyme scheme free verse	<p>RL.6.5- Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.</p> <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
III. Fiction and Drama		
A. Stories		
<i>The Iliad and The Odyssey</i> (Homer) <i>The Prince and the Pauper</i> (Mark Twain)	<p>RL.6.1 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.6.2 – Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p>RL.6.3 – Describe how a particular story’s or drama’s plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.</p> <p>RL.6.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>RL.6.5 – Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.</p> <p>RL.6.6 – Explain how an author develops the point of view of the narrator or speaker in a text.</p> <p>RL.6.7 – Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.</p> <p>RL.6.9 – Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>RL.6.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.6.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
B. Drama		
<i>Julius Caesar</i> (William Shakespeare)	<p>RL.6.1 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.6.2 – Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p>RL.6.3 – Describe how a particular story’s or drama’s plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.</p> <p>RL.6.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>meaning and tone.</p> <p>RL.6.5 – Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.</p> <p>RL.6.6 – Explain how an author develops the point of view of the narrator or speaker in a text.</p> <p>RL.6.7 – Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.</p> <p>RL.6.9 – Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p> <p>RL.6.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.6.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	phrase important to comprehension or expression.	
C. Classical Mythology		
<p>Apollo and Daphne Orpheus and Eurydice Narcissus and Echo Pygmalion and Galatea</p>	<p>RL.6.1 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.6.2 – Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.</p> <p>RL.6.3 – Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.</p> <p>RL.6.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>RL.6.5 – Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.</p> <p>RL.6.6 – Explain how an author develops the point of view of the narrator or speaker in a text.</p> <p>RL.6.7 – Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.</p> <p>RL.6.9 – Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p> <p>RL.6.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.6.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i>, choosing flexibly from a range of strategies.</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience</i>, <i>auditory</i>, <i>audible</i>).</p> <p>c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
D. Literary Terms		
Epic	L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
Literal and figurative language (review from grade 5) imagery metaphor and simile symbol personification	<p>RL.6.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>L.6.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., personification) in context.</p> <p>b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>stingy</i>, <i>scrumping</i>, <i>economical</i>, <i>unwasteful</i>, <i>thrifty</i>).</p> <p>L.6.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases;</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
IV. Sayings and Phrases		
<p>All for one and one for all. All's well that ends well. Bee in your bonnet The best-laid plans of mice and men oft go awry. A bird in the hand is worth two in the bush. Bite the dust Catch-as-catch-can Don't cut off your nose to spite your face. Don't lock the stable door after the horse is stolen. Don't look a gift horse in the mouth. Eat humble pie A fool and his money are soon parted. A friend in need is a friend indeed. Give the devil his due. Good fences make good neighbors. He who hesitates is lost. He who laughs last laughs best. Hitch your wagon to a star. If wishes were horses, beggars would ride. The leopard doesn't change his spots. Little strokes fell great oaks. Money is the root of all evil. Necessity is the mother of invention. It's never over till it's over. Nose out of joint Nothing will come of nothing. Once bitten, twice shy. On tenterhooks</p>	<p>RL.6.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>L.6.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., personification) in context.</p> <p>b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>stingy, scrimping, economical, unwasteful, thrifty</i>).</p>	

Core Knowledge Sequence GRADE 6	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Pot calling the kettle black</p> <p>Procrastination is the thief of time.</p> <p>The proof of the pudding is in the eating.</p> <p>RIP</p> <p>The road to hell is paved with good intentions.</p> <p>Rome wasn't built in a day.</p> <p>Rule of thumb</p> <p>A stitch in time saves nine.</p> <p>Strike while the iron is hot.</p> <p>Tempest in a teapot</p> <p>Tenderfoot</p> <p>There's more than one way to skin a cat.</p> <p>Touché!</p> <p>Truth is stranger than fiction.</p>		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing, Grammar, and Usage		
A. Writing and Research		
<p>Expository writing: Write nonfiction essays that describe, narrate, persuade, and compare and contrast.</p>	<p>W.7.1 - (<i>see also WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <ul style="list-style-type: none"> a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented. <p>W.7.2 - (<i>see also WHST.6-8.2</i>) Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ul style="list-style-type: none"> a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/ effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. 	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>W.7.3 - Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <ul style="list-style-type: none"> a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events. <p>W.7.4 - (<i>see also WHST.6-8.4</i>) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W.7.5 - (<i>see also WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 7 on page 52.)</p> <p>W.7.6 - (<i>see also WHST.6-8.6</i>) Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources</p> <p>W.7.10 - (<i>see also WHST.6-8.10</i>) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Write research essays, with attention to:</p> <ul style="list-style-type: none"> ◦ asking open-ended questions ◦ gathering relevant data through library and field research ◦ summarizing, paraphrasing, and quoting accurately when taking notes ◦ defining a thesis (that is, a central proposition, a main idea) ◦ organizing with an outline ◦ integrating quotations from sources ◦ acknowledging sources and avoiding plagiarism ◦ preparing a bibliography 	<p>W.7.7 - (<i>see also WHST.6-8.7</i>) Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.</p> <p>W.7.8 - (<i>see also WHST.6-8.8</i>) Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.</p> <p>W.7.9 - (<i>see also WHST.6-8.9</i>) Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 7 Reading standards</i> to literature (e.g., “Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history”).</p> <p>b. Apply <i>grade 7 Reading standards</i> to literary nonfiction (e.g. “Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims”).</p> <p>W.7.10 - (<i>see also WHST.6-8.10</i>) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
B. Speaking and Listening		
<p>Participate civilly and productively in group discussions.</p>	<p>SL.7.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 7 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</p> <p>b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>individual roles as needed.</p> <p>c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</p> <p>d. Acknowledge new information expressed by others and, when warranted, modify their own views.</p> <p>SL.7.2 - [Audience Role] Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.</p> <p>SL.7.3 - [Audience Role] Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.</p>	
<p>Give a short speech to the class that is well-organized and well-supported.</p>	<p>SL.7.4 - Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p>SL.7.5 - Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.</p>	
<p>Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.</p>	<p>SL.7.4 - Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p>SL.7.6 - Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 7 Language standards 1 and 3... for specific expectations.)</p> <p>L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of phrases and clauses in general and their function in specific sentences.</p> <p>b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.</p> <p>c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>modifiers.</p> <p>L.7.3 - Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
C. Grammar		
Parts of the Sentence		
<p>Prepositional phrases</p> <p>Identify as adjectival or adverbial</p> <p>Identify word(s) modified by the prepositional phrase</p> <p>Object of preposition (note that pronouns are in objective case)</p> <p>Punctuation of prepositional phrases</p>	<p>L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of phrases and clauses in general and their function in specific sentences.</p> <p>b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.</p> <p>c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.</p> <p>L.7.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie but not He wore an old [,] green shirt).</p>	
<p>Subject and verb</p> <p>Find complete subject and complete predicate</p> <p>Identify simple subject and simple verb (after eliminating prepositional phrases):</p>	<p>L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of phrases and clauses in general and their function in specific sentences.</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>in statements in questions in commands (you understood)</p> <p>with there and here</p> <p>Auxiliary verbs</p> <p>Noun of direct address</p> <p>Subject-verb agreement: with compound subjects with compound subjects joined by <i>or</i> with indefinite pronouns (for example, everyone, anyone, some, all)</p>	<p>b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.</p> <p>c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.</p>	
<p>Complements</p> <p>Find direct and indirect objects</p> <p>Review linking vs. action verbs</p> <p>Predicate nominative</p> <p>Predicate adjective</p>	<p>L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of phrases and clauses in general and their function in specific sentences.</p> <p>b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.</p> <p>c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.</p>	
<p>Appositives</p> <p>Identify and tell which noun is renamed</p> <p>Use of commas with appositive phrases</p>		<p>L.6.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.</p>
<p>Participles</p> <p>Identify past, present participles</p> <p>Identify participial phrases</p> <p>Find the noun modified</p> <p>Commas with participial phrases</p>		<p>L.8.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.</p>
<p>Gerunds and gerund phrases</p> <p>Identify and tell its use in the sentence (subject, direct object, indirect object, appositive, predicate</p>		<p>L.8.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of verbals (gerunds,</p>

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
nominative, object of preposition)		participles, infinitives) in general and their function in particular sentences.
Infinitives and infinitive phrases Adjective and adverb: find the word it modifies Noun: tell its use in the sentence		L.8.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.
Clauses		
Review: sentences classified by structure Simple; compound (coordinating conjunctions v. conjunctive adverbs); complex; compound-complex	L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of phrases and clauses in general and their function in specific sentences. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.	
Review independent (main) v. dependent (subordinate) clauses	L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Explain the function of phrases and clauses in general and their function in specific sentences. b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.	
Kinds of dependent clauses Adjective clauses Identify and tell noun modified	L.7.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Introductory words: relative pronouns, relative adverbs (where, when) Implied “that” Commas with nonrestrictive (nonessential) adjective clause Adverb clauses Identify and tell the word(s) modified Subordinating conjunctions (for example, because, although, when, since, before, after, as soon as, where) Comma after introductory adverbial clause Noun clauses Identify and tell use in the sentence (subject, predicate nominative, direct object, indirect object, object of preposition, appositive, objective complement, noun of direct address)	a. Explain the function of phrases and clauses in general and their function in specific sentences. c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers. L.7.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use a comma to separate coordinate adjectives (e.g., It was a fascinating, enjoyable movie but not He wore an old [,] green shirt).	
D. Spelling		
Continue work with spelling, with special attention to commonly misspelled words, including: <div>achievementaddress analysisanonymous argumentbeginning businesscollege consciencecontrol criticismdespise definite description doesn'tenvironment excellence existence grammarhypocrisy immediatelyinterpret knowledge lieutenant medievalmuscle muscularoccasionally</div>	L.7.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. b. Spell correctly.	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<div> <div>offense</div> <div>particularly</div> </div> <div> <div>persuade</div> <div>politician</div> </div> <div> <div>prejudice</div> <div>probably</div> </div> <div> <div>recognize</div> <div>remembrance</div> </div> <div> <div>responsibility</div> <div>rhyme</div> </div> <div> <div>sacrifice</div> <div>scholar</div> </div> <div> <div>shepherd</div> <div>sincerely</div> </div> <div> <div>sponsor</div> <div>succeed</div> </div> <div> <div>surprise</div> <div>tendency</div> </div> <div> <div>thorough</div> <div>truly</div> </div> <div> <div>women</div> <div>written</div> </div>		
E. Vocabulary		
<p><i>Latin/Greek Word—Meaning—Examples</i></p> <p>ab [L]—away from—abnormal, absent</p> <p>ad [L]—to, forward—advocate, advance</p> <p>amo [L]—love—amiable, amorous</p> <p>audio [L]—hear—audience, inaudible</p> <p>auto [G]—self— automobile, autocrat</p> <p>bene [L]—good/well—beneficial, benefit</p> <p>circum [L]—around—circulate, circumference</p> <p>celer [L]—swift—accelerate</p> <p>chronos [G]—time—chronological</p> <p>cresco [L]—grow—increase, decrease</p> <p>cum [L]—with—compose, accommodate</p> <p>curro [L]—run—current, cursive, course</p> <p>demos [G]—people—democracy, epidemic</p> <p>erro [L]—wander, stray—error, erratic</p> <p>ex [L]—from, out of—exclaim, exhaust</p> <p>extra [L]—outside—extravagant, extraordinary</p> <p>facio [L]—make—effect, affect</p> <p>fero [L]—bring, bear—confer, defer</p> <p>fragilis [L]—breakable—fragile, fragment</p> <p>finis [L]—end—confine, finality</p>	<p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent, bellicose, rebel</i>).</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>homos [G]—same—homogenous hyper [G]—over, beyond—hypertension, hyperactive hypo [G]—under, beneath—hypodermic, hypothesis jacio [L]—throw—eject, interject judex [L]—a judge—judge, prejudice juro [L]—swear—jury, perjury makros [G]—long—macrocosm malus [L]—bad—malady, malice manus [L]—hand—manufacture, manuscript morphe [G]—form—metamorphosis, amorphous neos [G]—new—neophyte pan [G]—all—panorama, panacea pedis [L]—foot—pedal, biped polis [G]—city—metropolis pro [L]—before, for—proceed, propose, prodigy pseudos [G]—a lie—pseudonym re [L]—back, again—react, reply, revise scribo[L]—write—scribble, inscribe sentio [L]—feel (with senses)—sensation, sensual, sentry sequor [L]—follow—subsequent, sequel solvo [L]—loosen—solution, dissolve, solvent specto [L]—look at—inspect, speculate, perspective strictus [L]—drawn tight—strict, constricted sub [L]—under—subdue, subject, subtract super [L]—above—superficial, superlative, supreme syn [G]—together—synchronize, synthesis tendo [L]—stretch—tension, intense, detention teneo [L]—hold, keep—contain, content, maintain trans [L]—across—transfer, transcontinental valeo [L]—be strong—prevail, valiant venio [L]—come—event, advent voco [L]—call—vocal, voice, vociferous volvo [L]—revolve—evolve, revolution</p>		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
zoon, zoe [G]—animal, life—zoology, protozoa		
II. Poetry		
A. Poems		
<p>Annabel Lee (Edgar Allan Poe) Because I could not stop for Death (Emily Dickinson) The Charge of the Light Brigade (Alfred Lord Tennyson) The Chimney Sweeper (both versions from <i>The Songs of Innocence</i> and <i>The Songs of Experience</i>; William Blake) The Cremation of Sam McGee (Robert Service) Dulce et Decorum Est (Wilfred Owen)</p> <p>Fire and Ice; Nothing Gold Can Stay (Robert Frost) Heritage (Countee Cullen) Macavity: The Mystery Cat (T.S. Eliot) The Negro Speaks of Rivers; Harlem; Life is Fine (Langston Hughes) This Is Just to Say; The Red Wheelbarrow (William Carlos Williams)</p>	<p>RL.7.1 - Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.7.2 – Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p> <p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>RL.7.5 – Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning.</p> <p>RL.7.6 – Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.</p> <p>RL.7.7 – Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).</p> <p>RL.7.9 – Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</p> <p>RL.7.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7</i></p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p><i>reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent, bellicose, rebel</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined, respectful, polite, diplomatic, condescending</i>). 	
B. Elements of Poetry		
<p>Review: meter, iamb, rhyme scheme, free verse, couplet, onomatopoeia, alliteration</p>	<p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>RL.7.5 – Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Stanzas and refrains	<p>RL.7.5 – Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
Forms ballad sonnet lyric narrative limerick haiku	<p>RL.7.5 – Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
Types of rhyme: end, internal, slant, eye	<p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
III. Fiction and Drama		
A. Short Stories		
<p>“The Gift of the Magi” (O. Henry)</p> <p>“The Necklace” (Guy de Maupassant)</p> <p>“The Secret Life of Walter Mitty” (James Thurber)</p> <p>“The Tell-Tale Heart”; “The Purloined Letter” (Edgar Allan Poe)</p>	<p>RL.7.1 - Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.7.2 – Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p> <p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>RL.7.5 – Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning.</p> <p>RL.7.6 – Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.</p> <p>RL.7.7 – Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).</p> <p>RL.7.9 – Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</p> <p>RL.7.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent</i>, <i>bellicose</i>, <i>rebel</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). 	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.</p> <p>b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined, respectful, polite, diplomatic, condescending</i>).</p>	
B. Novels/Novellas		
<p><i>The Call of the Wild</i> (Jack London)</p> <p><i>Dr. Jekyll and Mr. Hyde</i> (Robert Louis Stevenson)</p>	<p>RL.7.1 - Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.7.2 – Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p> <p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>RL.7.5 – Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning.</p> <p>RL.7.6 – Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.</p> <p>RL.7.7 – Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).</p> <p>RL.7.9 – Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>same period as a means of understanding how authors of fiction use or alter history.</p> <p>RL.7.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent, bellicose, rebel</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined, respectful, polite, diplomatic, condescending</i>). 	
C. Elements of Fiction		
Review aspects of plot and setting	RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
Theme	RL.7.2 – Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text. L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
Point of view in narration omniscient narrator unreliable narrator third person limited first person	RL.7.6 – Analyze how an author develops and contrasts the points of view of different characters or narrators in a text. L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
Conflict: external and internal	RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot). L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
Suspense and climax	RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot). L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
D. Essays and Speeches		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>“Shooting an Elephant” (George Orwell)</p> <p>“The Night the Bed Fell” (James Thurber)</p> <p>“Declaration of War on Japan” (Franklin D. Roosevelt)</p>	<p>RI.7.1 – (see also <i>RH.6-8.1</i>) Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RI.7.2 – (see also <i>RH.6-8.2</i>) Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.</p> <p>RI.7.3 – (see also <i>RH.6-8.3</i>) Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).</p> <p>RI.7.4 – (see also <i>RH.6-8.4</i>) Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>RI.7.5 – (see also <i>RH.6-8.5</i>) Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.</p> <p>RI.7.6 – (see also <i>RH.6-8.6</i>) Determine an author’s point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.</p> <p>RI.7.7 – (see also <i>RH.6-8.7</i>) Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium’s portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).</p> <p>RI.7.8 – (see also <i>RH.6-8.8</i>) Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.</p> <p>RI.7.10 – (see also <i>RH.6-8.10</i>) By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence)</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>as a clue to the meaning of a word or phrase.</p> <p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent</i>, <i>bellicose</i>, <i>rebel</i>).</p> <p>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.</p> <p>b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined</i>, <i>respectful</i>, <i>polite</i>, <i>diplomatic</i>, <i>condescending</i>).</p>	
E. Autobiography		
<i>Diary of a Young Girl</i> (Anne Frank)	<p>RL.7.1 - Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.7.2 – Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p> <p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>RL.7.6 – Analyze how an author develops and contrasts</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>the points of view of different characters or narrators in a text.</p> <p>RL.7.7 – Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).</p> <p>RL.7.9 – Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</p> <p>RL.7.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent</i>, <i>bellicose</i>, <i>rebel</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. 	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined, respectful, polite, diplomatic, condescending</i>).	
F. Drama		
<i>Cyrano de Bergerac</i> (Edmond Rostand)	<p>RL.7.1 - Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.7.2 – Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>RL.7.3 – Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p> <p>RL.7.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</p> <p>RL.7.5 – Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning.</p> <p>RL.7.6 – Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.</p> <p>RL.7.7 – Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).</p> <p>RL.7.9 – Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</p> <p>RL.7.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p> <p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7</i></p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p><i>reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent</i>, <i>bellicose</i>, <i>rebel</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined</i>, <i>respectful</i>, <i>polite</i>, <i>diplomatic</i>, <i>condescending</i>). 	
<p>Elements of drama Tragedy and comedy (review) Aspects of conflict, suspense, and characterization Soliloquies and asides</p>	<p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
G. Literary Terms		

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Irony: verbal, situational, dramatic	<p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
Flashbacks and foreshadowing	<p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
Hyperbole; oxymoron; parody	<p>L.7.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.</p> <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	

Core Knowledge Sequence GRADE 7	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
IV. Foreign Phrases Commonly Used in English		
<p>ad hoc - concerned with a particular purpose; improvised [literally, “to the thing”]</p> <p>bona fides - good faith; sincere, involving no deceit or fraud</p> <p>carpe diem - seize the day, enjoy the present</p> <p>caveat emptor - let the buyer beware, buy at your own risk</p> <p>de facto - in reality, actually existing</p> <p>in extremis - in extreme circumstances, especially at the point of death</p> <p>in medias res - in the midst of things</p> <p>in toto - altogether, entirely</p> <p>modus operandi - a method of procedure</p> <p>modus vivendi - a way of living, getting along</p> <p>persona non grata - an unacceptable or unwelcome person</p> <p>prima facie - at first view, apparently; self-evident</p> <p>pro bono publico - for the public good</p> <p>pro forma - for the sake of form, carried out as a matter of formality</p> <p>quid pro quo - something given or received in exchange for something else</p> <p>requiescat in pace, R I P - may he or she rest in peace [seen on tombstones]</p> <p>sic transit gloria mundi - thus passes away the glory of the world</p> <p>sine qua non - something absolutely indispensable [literally, “without which not”]</p> <p>sub rosa – secretly</p>	<p>L.7.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent, bellicose, rebel</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.7.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Writing, Grammar, and Usage		
A. Writing and Research		
Expository writing: Write essays that describe, narrate, persuade, and compare and contrast.	<p>W.8.1 - (<i>see also WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <ul style="list-style-type: none"> a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented. <p>W.8.2 - (<i>see also WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ul style="list-style-type: none"> a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that 	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>follows from and supports the information or explanation presented.</p> <p>W.8.3 - Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <ul style="list-style-type: none"> a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events. <p>W.8.4 - (<i>see also WHST.6-8.4</i>) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> <p>W.8.5 - (<i>see also WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 8 on page 52.)</p> <p>W.8.6 - (<i>see also WHST.6-8.6</i>) Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.</p> <p>W.8.10 - (<i>see also WHST.6-8.10</i>) Write routinely over</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	
<p>Write research essays, with attention to:</p> <ul style="list-style-type: none"> asking open-ended questions gathering relevant data through library and field research summarizing, paraphrasing, and quoting accurately when taking notes defining a thesis (that is, a central proposition, a main idea) organizing with an outline integrating quotations from sources acknowledging sources and avoiding plagiarism preparing a bibliography 	<p>W.8.7 - (<i>see also WHST.6-8.7</i>) Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</p> <p>W.8.8 - (<i>see also WHST.6-8.8</i>) Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.</p> <p>W.8.9 - (<i>see also WHST.6-8.9</i>) Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <ul style="list-style-type: none"> a. Apply <i>grade 8 Reading standards</i> to literature (e.g., “Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new”). b. Apply <i>grade 8 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced”). <p>W.8.10 - (<i>see also WHST.6-8.10</i>) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	
B. Speaking and Listening		
Participate civilly and productively in group discussions.	SL.8.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 8 topics, texts, and</i>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p><i>issues, building on others' ideas and expressing their own clearly.</i></p> <ul style="list-style-type: none"> a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas. d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented. <p>SL.8.2 - [Audience Role] Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.</p> <p>SL.8.3 - [Audience Role] Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.</p>	
Give a short speech to the class that is well-organized and well-supported.	<p>SL.8.4 - Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p>SL.8.5 - Integrate multimedia and visual displays into presentations to clarify information, strengthen\ claims and evidence, and add interest.</p>	
Demonstrate an ability to use standard pronunciation when speaking to large groups and in formal circumstances, such as a job interview.	<p>SL.8.4 - Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>volume, and clear pronunciation.</p> <p>SL.8.6 - Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.</p> <p>L.8.1 - Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> b. Form and use verbs in the active and passive voice. c. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood. d. Recognize and correct inappropriate shifts in verb voice and mood. <p>L.8.3 - Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ul style="list-style-type: none"> a. Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact). <p>L.8.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
C. Grammar		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p><u>Punctuation</u> Review punctuation based on sentence structure, including:</p> <ul style="list-style-type: none"> semi-colons commas with phrases and clauses <p>Review other punctuation, including:</p> <ul style="list-style-type: none"> punctuation of quotations, dialogue use of parentheses hyphens dashes colons italics apostrophes 	<p>L.8.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break. b. Use an ellipsis to indicate an omission. 	
<p><u>Misplace Modifiers</u> Phrases and clauses go as near as possible to the word(s) they modify.</p> <ul style="list-style-type: none"> Dangling modifiers Two-way modifiers 	<p>W.8.2 - (<i>see also WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ul style="list-style-type: none"> c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. e. Establish and maintain a formal style. <p>W.8.5 - (<i>see also WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 8 on page 52.)</p>	
<p><u>Parallelism</u> Parallelism is expressing ideas of equal importance using the same grammatical constructions.</p> <p>Kinds of parallelism</p> <ul style="list-style-type: none"> coordinate (using coordinating conjunctions <i>and, but, or, nor, yet</i>) compared/contrasted 	<p>W.8.1 - (<i>see also WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <ul style="list-style-type: none"> a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among 	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>correlative (both . . . and, either . . . or, neither . . . nor, not only . . . but also)</p> <p>Correcting faulty parallelism</p> <p>repeating words (articles, prepositions, pronouns) to maintain parallelism</p> <p>completing parallel construction</p> <p>revising sentences using parallel structure (for example, using all gerund phrases, or all noun clauses)</p>	<p>claim(s), counterclaims, reasons, and evidence.</p> <p>d. Establish and maintain a formal style.</p> <p>W.8.2 - (<i>see also WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</p> <p>e. Establish and maintain a formal style.</p> <p>W.8.3 - Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <p>a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</p> <p>c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.</p> <p>W.8.5 - (<i>see also WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 8.)</p>	
<p><u>Sentence Variety</u></p> <p>Review sentences classified by structure: simple, compound, complex, compound-complex.</p> <p>Varying sentence length and structure to avoid monotony</p> <p>Varying sentence openings</p>	<p>W.8.1 - (<i>see also WHST.6-8.1</i>) Write arguments to support claims with clear reasons and relevant evidence.</p> <p>a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.</p> <p>c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.</p> <p>d. Establish and maintain a formal style.</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level												
	<p>W.8.2 - (see also <i>WHST.6-8.2</i>) Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <p>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</p> <p>e. Establish and maintain a formal style.</p> <p>W.8.3 - Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <p>a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</p> <p>c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.</p> <p>W.8.5 - (see also <i>WHST.6-8.5</i>) With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 8 on page 52.)</p>													
D. Spelling														
<p>Continue work with spelling, with special attention to commonly misspelled words, including:</p> <table><tr><td>absence</td><td>accommodate</td></tr><tr><td>analysis</td><td>attendance</td></tr><tr><td>believe</td><td>bureau</td></tr><tr><td>capitol</td><td>colonel</td></tr><tr><td>committee</td><td>correspondence</td></tr><tr><td>curiosity</td><td>defendant</td></tr></table>	absence	accommodate	analysis	attendance	believe	bureau	capitol	colonel	committee	correspondence	curiosity	defendant	<p>L.8.2 - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>c. Spell correctly.</p>	
absence	accommodate													
analysis	attendance													
believe	bureau													
capitol	colonel													
committee	correspondence													
curiosity	defendant													

Core Knowledge Sequence Grade 8		Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
dessert	desperate		
dissatisfied	extraordinary		
fascinating	foreign		
guarantee	hygiene		
independence	laboratory		
library	lightning		
maintenance	mileage		
necessary	occurrence		
permanence	physician		
prairie	sergeant		
souvenir	straight		
technique	temporary		
vacuum	whether		
E. Vocabulary			
<i>Latin/Greek Word—Meaning—Examples</i> aequus [L]—equal—equal, equation ago, acta [L]—do, things done—agent, enact, transact anthropos [G]—man, human being—anthropology, misanthrope ars [L]—art—artist, artifact brevis [L]—short—brevity, abbreviate canto [L]—sing—chant, cantor caput [L]—head—captain, decapitate clino [L]—to lean, bend—incline, decline cognito [L]—know—cognizant, recognize copia [L]—plenty—copy, copious credo [L]—believe—credible, incredulous culpa [L]—blame—culpable, culprit dominus [L]—a lord, master—dominate, dominion duco [L] —lead—abduct, introduce fido [L] —to trust, believe—confide, infidel fundo, fusum [L] —pour, thing poured—effusive, transfusion genus [L]—kind, origin—generic, congenital		L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on <i>grade 8 reading and content</i> , choosing flexibly from a range of strategies. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>precede, recede, secede</i>).	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p> holos [G]—whole—holistic, catholic jungo [L]—join—junction, conjugal lego, lectum [L]—read, thing read—intellect, legible locus [L]—a place—local, dislocate loquor [L]—speak—eloquent, loquacious medius [L]—middle—mediate, mediocrity missio [L]—a sending—emissary, mission moriō [L]—die—mortal nego [L]—deny—negate nihil [L]—nothing—nihilism, annihilate occido [L]—kill—homicide, suicide pathos[G]—suffering, feeling—sympathy, apathy pendo [L]—weigh, hang—depend, pendant per [L]—through—perceive, persist, persevere phobos [G]—fear—phobia, claustrophobia plenus [L]—full—plenty, plenary positum [L]—placed—position, opposite porto [L]—carry—transport, export possum [L]—be able—possible, potent pugno [L]—to fight—impugn, pugnacious punctum [L]—point—punctual, punctuation rego [L]—to rule—regular, regency sanguis [L]—blood—sanguine satis [L]—enough—satisfy scio [L]—know—science, conscious solus [L]—alone—solo, desolate sonus [L]—a sound—unison, consonant sophos [G]—wise—philosophy, sophomore spiritus [L]—breath—inspire, spirit totus [L]—whole—totalitarianism tractum [L]—drawn, pulled—distract, tractor usus [L]—use—abuse, utensil vacuus [L]—empty—evacuate, vacuum verbum [L]—word—verbal </p>		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>verto [L]—turn—avert, convert, anniversary via [L]—way, road—deviate, viaduct</p>		
II. Poetry		
A. Poems		
<p>Buffalo Bill's (e.e. cummings) Chicago (Carl Sandburg) Do Not Go Gentle into That Good Night (Dylan Thomas) How do I love thee? (Elizabeth Barrett Browning) How They Brought the Good News From Ghent to Aix (Robert Browning) I dwell in possibility; Apparently with no surprise (Emily Dickinson) The Lake Isle of Innisfree (William B. Yeats) Lucy Gray (or Solitude); My Heart Leaps Up (William Wordsworth) Mending Wall; The Gift Outright (Robert Frost) Mr. Flood's Party (Edward Arlington Robinson) Polonius's speech from <i>Hamlet</i>, "Neither a borrower nor a lender be . . ." (William Shakespeare) Ozymandias (Percy Bysshe Shelley) Sonnet 18, "Shall I compare thee. . ." (William Shakespeare) Spring and Fall (Gerald Manley Hopkins) A Supermarket in California (Allen Ginsberg) Theme for English B (Langston Hughes) We Real Cool (Gwendolyn Brooks)</p>	<p>RL.8.1 – Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>RL.8.6 – Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.</p> <p>RL.8.9 – Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.</p> <p>RL.8.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.</p> <p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., verbal irony, puns) in context.</p> <p>b. Use the relationship between particular words to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>).</p>	
B. ELEMENTS OF POETRY		
<p>• Review: meter, iamb, rhyme scheme, free verse, couplet, onomatopoeia, alliteration, assonance</p>	<p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>L.8.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
<p>•Review: forms: ballad, sonnet, lyric, narrative, limerick, haiku stanzas and refrains types of rhyme: end, internal, slant, eye metaphor and simile extended and mixed metaphors</p>	<p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>L.8.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
imagery, symbol, personification allusion	phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	
III. Fiction, Nonfiction, and Drama		
A. SHORT STORIES		
<p>“The Bet” (Anton Chekov)</p> <p>“Dr. Heidegger’s Experiment” (Nathaniel Hawthorne)</p> <p>“God Sees the Truth But Waits” (Leo Tolstoy)</p> <p>“An Honest Thief” (Fyodor Dostoyevsky)</p> <p>“The Open Boat” (Stephen Crane)</p>	<p>RL.8.1 – Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>RL.8.6 – Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.</p> <p>RL.8.9 – Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.</p> <p>RL.8.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.</p> <p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., verbal irony, puns) in context.</p> <p>b. Use the relationship between particular words to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>).</p>	
B. NOVELS		
<p><i>Animal Farm</i> (George Orwell)</p> <p><i>The Good Earth</i> (Pearl S. Buck)</p>	<p>RL.8.1 – Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>RL.8.6 – Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.</p> <p>RL.8.7 – Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.</p> <p>RL.8.9 – Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.</p> <p>RL.8.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.</p> <p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., verbal irony, puns) in context. 	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>b. Use the relationship between particular words to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>).</p>	
C. ELEMENTS OF FICTION		
<ul style="list-style-type: none"> • Review: <ul style="list-style-type: none"> plot and setting theme point of view in narration: omniscient narrator, unreliable narrator, third person limited, first person conflict: external and internal suspense and climax • Characterization <ul style="list-style-type: none"> as delineated through a character's thoughts, words, and deeds; through the narrator's description; and through what other characters say flat and round; static and dynamic motivation protagonist and antagonist • Tone and diction 	<p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>RL.8.6 – Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.</p> <p>L.8.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
D. ESSAYS AND SPEECHES		
<p>“Ask not what your country can do for you” (John F. Kennedy’s Inaugural Address)</p> <p>“I have a dream”; “Letter from Birmingham Jail” (Martin Luther King, Jr.)</p> <p>“Death of a Pig” (E. B. White)</p> <p>“The Marginal World” (Rachel Carson)</p>	<p>RI.8.1 - (see also <i>RH.6-8.1</i> and <i>RST.6-8.1</i>) Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RI.8.2 – (see also <i>RH.6-8.2</i> and <i>RST.6-8.2</i>) Determine a central idea of a text and analyze its</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.</p> <p>RI.8.3 – (see also <i>RH.6-8.3</i>) Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).</p> <p>RI.8.4 – (see also <i>RH.6-8.4</i> and <i>RST.6-8.4</i>) Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RI.8.5 – (see also <i>RH.6-8.5</i> and <i>RST.6-8.5</i>) Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.</p> <p>RI.8.6 – (see also <i>RH.6-8.6</i> and <i>RST.6-8.6</i>) Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.</p> <p>RI.8.7 – (see also <i>RH.6-8.7</i>) Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.</p> <p>RI.8.8 – (see also <i>RH.6-8.8</i> and <i>RST.6-8.8</i>) Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.</p> <p>RI.8.10 – (see also <i>RH.6-8.10</i> and <i>RST.6-8.10</i>) By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6–8 text complexity band independently and proficiently.</p> <p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. 	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., verbal irony, puns) in context.</p> <p>b. Use the relationship between particular words to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>).</p>	
E. AUTOBIOGRAPHY		
<p>Selections (such as chapters 2 and 16) from <i>I Know Why the Caged Bird Sings</i> (Maya Angelou)</p>	<p>RL.8.1 – Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>RL.8.6 – Analyze how differences in the points of view</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.</p> <p>RL.8.9 – Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.</p> <p>RL.8.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.</p> <p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., verbal irony, puns) in context. b. Use the relationship between particular words to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>). 	
F. DRAMA		

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<ul style="list-style-type: none"> • <i>Twelfth Night</i> (William Shakespeare) 	<p>RL.8.1 – Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>RL.8.6 – Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.</p> <p>RL.8.7 – Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.</p> <p>RL.8.9 – Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.</p> <p>RL.8.10 – By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6–8 text complexity band independently and proficiently.</p> <p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function 	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	<p>in a sentence) as a clue to the meaning of a word or phrase.</p> <p>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</p> <p>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</p> <p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., verbal irony, puns) in context.</p> <p>b. Use the relationship between particular words to better understand each of the words.</p> <p>c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>).</p>	
<p>• Elements of Drama</p> <p>Review:</p> <p>tragedy and comedy</p> <p>aspects of conflict, suspense, and characterization</p> <p>soliloquies and asides</p> <p>Farce and satire</p> <p>Aspects of performance and staging:</p> <p>actors and directors</p> <p>sets, costumes, props, lighting, music</p> <p>presence of an audience</p>	<p>RL.8.2 – Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.</p> <p>RL.8.3 – Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.</p> <p>RL.8.4 – Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.</p> <p>RL.8.5 – Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.</p> <p>L.8.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
	comprehension or expression.	
G. LITERARY TERMS		
<ul style="list-style-type: none"> • Irony: verbal, situational, dramatic • Flashbacks and foreshadowing • Hyperbole, oxymoron, parody 	<p>L.8.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Interpret figures of speech (e.g., verbal irony, puns) in context. b. Use the relationship between particular words to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded</i>, <i>willful</i>, <i>firm</i>, <i>persistent</i>, <i>resolute</i>). <p>L.8.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	
IV. Foreign Phrases Commonly Used in English		
<p>au revoir - goodbye, until we see each other again</p> <p>avant-garde - a group developing new or experimental concepts, a vanguard</p> <p>bête noire - a person or thing especially dreaded and avoided [literally, “black beast”]</p> <p>c’est la vie - that’s life, that’s how things happen</p> <p>carte blanche - full discretionary power [literally, “blank page”]</p> <p>cause célèbre - a very controversial issue that generates fervent public debate [literally, a “celebrated case”]</p> <p>coup de grâce - a decisive finishing blow</p> <p>coup d’état - overthrow of a government by a group</p> <p>déjà vu - something overly familiar [literally, “already seen”]</p> <p>enfant terrible - one whose remarks or actions cause embarrassment, or someone strikingly unconventional [literally, “terrible child”]</p> <p>fait accompli - an accomplished fact, presumably irreversible</p> <p>faux pas - a social blunder [literally, “false step”]</p>	<p>L.8.4 - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>precede</i>, <i>receded</i>, <i>secede</i>). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). <p>L.8.6 - Acquire and use accurately grade-appropriate</p>	

Core Knowledge Sequence Grade 8	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Madame, Mademoiselle, Monsieur - Mrs., Miss, Mr. merci - thank you pièce de résistance - the principal part of the meal, a showpiece item raison d'être - reason for being savoir-faire - the ability to say or do the right thing in any situation, polished sureness in society [literally, "to know (how) to do"] tête-à-tête - private conversation between two people [literally, "head to head"]</p>	<p>general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	

GAP Analysis

The following *Common Core State Standards for ELA* are not explicitly addressed in the guidelines presented in the *Core Knowledge Sequence*. However, the rich primary source documents and literary texts that are listed in the *Core Knowledge Sequence* represent precisely the types of texts that should be used to address the standards below.

Core Knowledge educators are encouraged to address these standards in the context of primary source documents and literary texts that are listed in the *Core Knowledge Sequence*.

ITEM	STRAND	CATEGORY	STANDARD
RI6.1	Reading Informational	Key Ideas and Details	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
RI6.3	Reading Informational	Key Ideas and Details	Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).
RI6.4	Reading Informational	Craft and Structure	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
RI6.5	Reading Informational	Craft and Structure	Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
RI6.6	Reading Informational	Craft and Structure	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.
RI6.7	Reading Informational	Integration of Knowledge and Ideas	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
RI6.8	Reading Informational	Integration of Knowledge and Ideas	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
RI6.9	Reading Informational	Integration of Knowledge and Ideas	Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).
RI6.10	Reading Informational	Range of Reading and Level of Text Complexity	By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
RI7.9	Reading Informational	Integration of Knowledge and Ideas	Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.
RI8.9	Reading Informational	Integration of Knowledge and Ideas	Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

Core Knowledge Sequence Kindergarten	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Patterns and Classification			
Establish concepts of likeness and difference by sorting and classifying objects according to various attributes: size, shape, color, amount, function, etc.	4	K.MD 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	
Define a set by the common property of its elements.	7	K.G. 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).	
In a collection of objects that includes a given set and an item that does not belong, indicate which item does not belong.	2	K.MD 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	
Moving from concrete objects to pictorial representations, recognize patterns and predict the extension of a pattern.	7		4.OA 5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i>
Extend a sequence of ordered concrete objects.	1, 7		
II. Numbers and Number Sense			
Using concrete objects and pictorial representations, compare sets: same as (equal to) more than less than most least	4	K.CC 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. K.OA 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).	
Count			

Core Knowledge Sequence Kindergarten	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
forward from 1 to 31, first beginning with 1, and later from any given number	2	K.CC 1. Count to 100 by ones and by tens. K.CC 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	
backward from 10	2		
from 1 to 10 by twos	2		
by fives and tens to 50	2	K.CC 1. Count to 100 by ones and by tens.	
Write numbers 1 to 31 (with special attention to the difference between certain written symbols, such as 6 and 9; 2 and 5; 1 and 7; 12 and 21, etc.).	2	K.CC 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	
Count and write the number of objects in a set.	2	K.CC 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). K.CC 4. Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger. K.CC 5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	
Given a number, identify one more, one less.	2	K.OA 1. Represent addition and subtraction with objects, fingers, mental images, drawings ² , sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	
Identify ordinal position, first (1st) through sixth (6th).	2		

Core Knowledge Sequence Kindergarten	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify pairs.	2		
Interpret simple pictorial graphs.	4		2.MD 10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems ⁴ using information presented in a bar graph.
Identify $\frac{1}{2}$ as one of two equal parts of a region or object; find $\frac{1}{2}$ of a set of concrete objects.	2, 7		3.NF 1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
III. Money			
Identify pennies, nickels, dimes, and quarters.	2		
Identify the one-dollar bill.	2		
Identify the dollar sign (\$) and cents sign (¢).	2		
Write money amounts using the cents sign (¢).	2		
IV. Computation			
Add and subtract to ten, using concrete objects; Recognize the meaning of the plus sign (+).	6	<p>K.OA 1. Represent addition and subtraction with objects, fingers, mental images, drawings², sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</p> <p>K.OA 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem</p> <p>K.OA 4. For any number 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</p>	
Subtraction: the concept of “taking away”; recognize the meaning of the minus sign (-).	6	<p>K.OA 1. Represent addition and subtraction with objects, fingers, mental images, drawings², sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</p> <p>K.OA 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem</p>	

Core Knowledge Sequence Kindergarten	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
V. Measurement			
Identify familiar instruments of measurement, such as ruler, scale, thermometer.	5,6		
Compare objects according to: Linear measure long and short; longer than, shorter than measure length using non-standard units begin to measure length in inches height: taller than, shorter than Weight heavy, light heavier than, lighter than Capacity (volume) full and empty less full than, as full as, fuller than Temperature: hotter and colder	4,5,6	K. MD 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K. MD 2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	
Time Sequence events: before and after; first, next, last. Compare duration of events: which takes more or less time. <i>Read a clock face and tell time to the hour.</i> Know the days of the week and the months of the year. Orientation in time: today, yesterday, tomorrow; morning, afternoon; this morning vs. yesterday morning, etc.	4,5,6		1. MD. 3. Tell and write time in hours and half-hours using analog and digital clocks.
VI. Geometry			
Identify left and right hand.	2		
Identify top, bottom, middle.	2		

Core Knowledge Sequence Kindergarten	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know and use terms of orientation and relative position, such as: closed, open on, under, over in front, in back (behind) between, in the middle of next to, beside inside, outside around far from, near above, below to the right of, to the left of here, there	4	K.G 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	
Identify basic shapes in a variety of common objects and artifacts (windows, pictures, books, buildings, cars, etc.).	4	K.G 2. Correctly name shapes regardless of their orientations or overall size.	
Identify and sort basic plane figures: square, rectangle, triangle, circle.	4	K.G 2. Correctly name shapes regardless of their orientations or overall size. K. G 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).	
Recognize shapes as the same or different.	4	K.G 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).	
Make congruent shapes and designs.	4	K. G 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. K.G 6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”	

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Patterns and Classification			
Establish concepts of likeness and difference by sorting and classifying objects according to various attributes: size, shape, color, amount, function, etc.	4		K.MD 33. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. K.G. 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
Define a set by the common property of its elements.	2		K.MD 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
In a collection of objects that includes a given set and an item that does not belong, indicate which item does not belong.	2		K.MD 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
Recognize patterns and predict the extension of a pattern.	7		4.OA 5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i>
II. Numbers and Number Sense			
Write numbers 0-100	2	1.NBT 1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	
Count from 0 - 100 by ones; twos; fives; tens.	2	1.NBT 1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Count forward and backwards.	2	1.NBT 1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	
Use tallies.	4		
Identify ordinal position, 1st to 10th.	2		
Identify dozen; half-dozen; pair.	2		
Recognize place value: ones, tens, hundreds.	6	<p>1.NBT 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> a. 10 can be thought of as a bundle of ten ones — called a “ten.” b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). 	<p>K.NBT 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p> <p>2.NBT 1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
Identify more and less; counting how many more or less.	6		K.MD 2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.
Given a number, identify one more and one less; ten more and ten less.	6, 8	1.NBT 5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	
Compare quantities using the signs <, >, and = .	2	1.NBT 3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	K.CC 7. Compare two numbers between 1 and 10 presented as written numerals.

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Recognize fractions as part of a whole: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$	2	1.G.3. Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	3.NF 1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$. 3.G 2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.
Create and interpret simple pictorial graphs and bar graphs.	4	1.MD 4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	2. MD 10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems ⁴ using information presented in a bar graph.
III. Money			
Identify and recognize relative value of penny, nickel, dime, quarter.	2		
Recognize and use dollar (\$) and cents (¢) signs.	2		
Show how different combinations of coins equal the same amounts of money.	7,8		
IV. Computation			
Addition(using concrete objects, and paper and pencil)			
Know the meaning of the plus (+) sign.	2		
Know what a “sum” is.	2		
Know addition facts to $10 + 10$ (untimed mastery).	6,7,8	1.OA 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).	K.OA 4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. K.OA 5. Fluently add and subtract within 5.

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Add in any order.	6,7,8	1.OA 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).	
Know what happens when you add zero.	6,7,8		
Know how to write addition problems horizontally and vertically.	6,7,8		
Know that when you add 3 numbers, you get the same sum regardless of grouping of addends.	6,7,8	1.OA 2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	
Solve two-digit addition problems with and without regrouping.	6,7,8	1.NBT 4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	
Subtraction (using concrete objects, and paper and pencil)			
Understand subtraction as “taking away.”	6,7,8	1. OA 5. 5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	
Know the meaning of the minus sign (-).	2		
Know what a “difference” is.	2		

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know subtraction facts corresponding to addition facts (untimed mastery).	6,7,8	<p>1.OA 4. Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</p> <p>1.OA 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).</p>	K.OA 5. Fluently add and subtract within 5.
Know how to write subtraction problems horizontally and vertically.	6,7,8		
Solve two-digit subtraction problems with and without regrouping.	6,7,8	<p>1.NBT 4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</p>	
Mentally subtract 10 from a two-digit number.	6,7,8	<p>1.NBT 5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p> <p>1.NBT 6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>	
Solving Problems and Equations			

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Write an addition or subtraction equation to solve basic one-step story and picture problems.	4,6,7,8	1.OA 1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	
Solve simple equations in the form of ____ - 2 = 7; 5 + ____ = 7.	6,7,8	<p>1.OA 3. Apply properties of operations as strategies to add and subtract.3 Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</p> <p>1.OA 7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</p> <p>1.OA 8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \quad - 3$, $6 + 6 = \quad$.</p>	
V. Measurement			
Identify familiar instruments of measurement, such as ruler, scale, thermometer.	5,6		

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Compare objects according to:</p> <p>Linear measure</p> <p>Measure length using non-standard units.</p> <p>Measure length in inches and feet, and in centimeters.</p> <p>Measure and draw line segments in inches and centimeters.</p> <p>Weight</p> <p>Compare weights of objects using a balance scale.</p> <p>Measure weight in non-standard units and in pounds.</p> <p>Capacity (volume)</p> <p>Estimate and measure capacity in cups.</p> <p>Identify quart, gallon.</p> <p>Temperature: associate temperature in degrees Fahrenheit with weather.</p>	4,5,6	<p>1.MD 1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.</p> <p>1.MD 2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</p>	<p>K.MD 1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>2.MD 2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</p> <p>3.MD 2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.</p>
<p>Time</p> <p>Sequence events: before and after; first, next, last.</p> <p>Compare duration of events: which takes more or less time.</p> <p>Read a clock face and tell time to the half-hour.</p> <p>Know the days of the week and the months of the year, both in order and out of sequence.</p> <p>Orientation in time: today, yesterday, tomorrow; morning, afternoon, evening, night; this morning vs. yesterday morning, etc.</p>	4,5,6	<p>1.MD 3. Tell and write time in hours and half-hours using analog and digital clocks.</p>	
VI. Geometry			
Identify left and right hand.	2		

Core Knowledge Sequence Grade 1	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify top, bottom, middle.	2		
Know and use terms of orientation and relative position, such as: closed, open on, under, over in front, in back (behind) between, in the middle of next to, beside inside, outside around far from, near above, below to the right of, to the left of here, there	2	1.G1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	
Identify and draw basic plane figures: square, rectangle, triangle, circle.	5		K.G 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
Describe square, rectangle, triangle according to number of sides.	1,2	1.G1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	
Identify basic solid figures: sphere, cube, cone.	1		K.G 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
Identify basic shapes in a variety of common objects and artifacts (balls, cans, windows, pictures, books, buildings, cars, etc.).	1		
Make congruent shapes and designs.	1,4	1.G2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Numbers and Number Sense			
Write numbers to 1,000.	2	2.NBT 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	
Read and write words for numbers from one to one-hundred.	2	2.NBT 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	
Order and compare numbers to 1,000, using the signs <, >, and = .	2	2.NBT 4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	
Count by twos, threes, fives, and tens by tens from any given number by hundreds to 1,000; by fifties to 1,000 forward and backward	2	2.NBT 2. Count within 1000; skip-count by 5s, 10s, and 100s.	
Use a number line.	2	2. MD 6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	
Use tallies.	2		
Identify ordinal position, 1st to 20th, and write words for ordinal numbers, first to twentieth.	2		
Identify even and odd numbers.	2	2.OA 3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	
Identify dozen; half-dozen; pair.	2		

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Recognize place value: ones, tens, hundreds, thousands.	2	<p>2.NBT 1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). 	
Write numbers up to hundreds in expanded form (for example $64 = 60 + 4$; $367 = 300 + 60 + 7$).	2	<p>2.NBT 1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). <p>2.NBT 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p>	
Given a number, identify one more and one less; ten more and ten less.	8	2.NBT 8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	
Round to the nearest ten.	4		3.NBT 1. Use place value understanding to round whole numbers to the nearest 10 or 100.
Create and interpret simple bar graphs.	4	2.MD 10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems ⁴ using information presented in a bar graph.	3.MD 3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i>

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify and extend numerical and symbolic patterns.	7		<p>3.OA 9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i></p> <p>4.OA 5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i></p>
Record numeric data systematically and find the lowest and highest values in a data set.	6, 7		1. MD 4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
II. Fractions			
Recognize these fractions as part of a whole set or region and write the corresponding numerical symbols: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{8}$, $\frac{1}{10}$.	2	2.G 3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	
Recognize fractions that are equal to 1.	7		<p>3.NF 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3 = \frac{3}{1}$; recognize that $\frac{6}{1} = 6$; locate $\frac{4}{4}$ and 1 at the same point of a number line diagram.</p>
III. Money			
Recognize relative values of a penny, nickel, dime, quarter, and dollar.	2		
Write amounts of money using \$ and ¢ signs, and the decimal point.	2		
Show how different combinations of coins equal the same amounts of money.	2		

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Add and subtract amounts of money.	2, 6	2.MD 8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?	
IV. Computation			
A. Addition			
Achieve timed mastery of addition facts (2 seconds).	8	2.OA 2. Fluently add and subtract within 20 using mental strategies. ² By end of Grade 2, know from memory all sums of two one-digit numbers.	
Recognize what an addend is.	2		1.OA 4. Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.
Know how to write addition problems horizontally and vertically.	2		
Know how to add in any order and check a sum by changing the order of the addends.	1		1.OA 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).
Estimate the sum.	4		
Solve two-digit and three-digit addition problems with and without regrouping.	4, 6	2.NBT 7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	
Find the sum (up to 999) of any two whole numbers.	4, 6	2.NBT 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Add three two-digit numbers.	4, 6	2.NBT 6. Add up to four two-digit numbers using strategies based on place value and properties of operations.	
Practice doubling (adding a number to itself).	4, 6	2.NBT 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
B. Subtraction			
Understand the inverse relation between addition and subtraction; use addition to check subtraction.	1	2.NBT 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
Know addition and subtraction “fact families.”	7	2.NBT 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
Achieve mastery of subtraction facts.	8	2.OA 2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	
Estimate the difference.	4		
Know how to write subtraction problems horizontally and vertically.	2		
Solve two-digit and three-digit subtraction problems with and without regrouping.	4	2.NBT 7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three- digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	
Given two whole numbers of 999 or less, find the difference.	4	2.NBT 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
C. Introduction to Multiplication			
Recognize the “times” sign (x).	2		

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know what “factor” and “product” mean.	2		3.OA 1. Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as 5×7.</i>
Understand that you can multiply numbers in any order.	7		3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
Multiplication facts: know the product of any single-digit number \times 1, 2, 3, 4, 5.	7	2.OA 4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
Know what happens when you multiply by 1, by 0, and by 10.	7		3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
Practice simple word problems involving multiplication.	4, 6		3.OA 3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ¹
D. Solving Problems and Equations			
Solve basic word problems.	2, 4, 6	<p>2.OA 1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.¹</p> <p>2.MD 5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.</p>	

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Write and solve simple equations in the form of $___ - 9 = 7$; $7 + ___ = 16$; $4 \times ___ = 8$.	4, 6		1.OA.8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$.
V. Measurement			
A. Linear Measure			
Make linear measurements in feet and inches, and in centimeters.	2, 4, 5	2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2.MD.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	
Know that one foot = 12 inches.	7		4.MD.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i>
Know abbreviations: ft., in.	2		
Measure and draw line segments in inches to 1/2 inch, and in centimeters.	5	2.MD.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. 2.MD.9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Estimate linear measurements, then measure to check estimates.	1, 4	2.MD 3. Estimate lengths using units of inches, feet, centimeters, and meters.	
B. Weight			
Compare weights of objects using a balance scale.	5		
Estimate and measure weight in pounds, and know abbreviation: lb.	4		
C. Capacity (volume)			
Estimate and measure capacity in cups.	4		3.MD 2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
Measure liquid volumes: cups, pints, quarts, gallons.	5		3.MD 2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.7
Compare U.S. and metric liquid volumes: quart and liter (one liter is a little more than one quart).	5		
D. Temperature			
Measure and record temperature in degrees Fahrenheit to the nearest 2 degrees.	5		
Know the degree sign: °	2		
E. Time			
Read a clock face and tell time to five-minute intervals.	2, 5	2.MD 7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	
Know how to distinguish time as a.m. or p.m.	2	2.MD 7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	
Understand noon and midnight.	2		

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve problems on elapsed time (how much time has passed?).	2, 4		3.MD 1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
Using a calendar, identify the date, day of the week, month, and year.	5		
Write the date using words and numbers.	5		
VI. Geometry			
Identify and draw basic plane figures: square, rectangle, triangle, circle.	2, 7	2.G 1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	
Describe square, rectangle, triangle according to number of sides; distinguish between square and rectangle as regards length of sides (a square has sides of equal length).	7	2.G 1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	5.G 3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
Measure perimeter in inches of squares and rectangles.	5	2.G 2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	3.MD 8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
Identify solid figures—sphere, cube, pyramid, cone, cylinder—and associate solid figures with planar shapes: sphere (circle), cube (square), pyramid (triangle).	7	2.G 1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	K.G 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).
Make congruent shapes and designs.	7		1.G 2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Core Knowledge Sequence Grade 2	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify lines as horizontal; vertical; perpendicular; parallel.	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 4.G 2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
Name lines and line segments (for example, line AB; segment CD).	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
Identify a line of symmetry, and create simple symmetric figures.	7		4.G 3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Numbers and Number Sense			
Read and write numbers (in digits and words) up to six digits.	2		2.NBT 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
Recognize place value up to hundred thousands.	6		<p>2.NBT 1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <p>a. 100 can be thought of as a bundle of ten tens — called a “hundred.”</p> <p>b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p> <p>2.NBT 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p>
Order and compare numbers to 999,999, using the signs <, >, and = .	1		2.NBT 4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
Count by twos, threes, fives, and tens; count by tens from any given number.	2		2.NBT 2. Count within 1000; skip-count by 5s, 10s, and 100s.
Write numbers in expanded form.	2		2.NBT 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
Use a number line.	5		2. MD 6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
Identify ordinal position, 1st to 100th.	2		
Review: even and odd numbers; dozen; half-dozen; pair.	2		2.OA 3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
Round to the nearest ten; to the nearest hundred.	6	3.NBT 1. Use place value understanding to round whole numbers to the nearest 10 or 100.	

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify perfect squares (and square roots) to 100, and recognize the square root sign: $\sqrt{\quad}$	2		8.EE 2 Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.
Identify Roman numerals from 1 to 20 (I - XX).	2		
Understand what negative numbers are in relation to familiar uses (such as temperatures below zero).	7		6.NS 5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
Locate positive and negative whole numbers on a number line.	5, 7		6.NS 5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
Create and interpret bar graphs and line graphs.	4	3.MD 3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.	2.MD 10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.
Record outcomes for a simple event (for example, tossing a die) and display the results graphically.	4, 6	3.MD 3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.	
II. Fractions and Decimals			
Recognize fractions to $\frac{1}{10}$ and fractions whose denominator is 100.	2, 7	3.NF 1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.	

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify numerator and denominator.	2	3.NF 1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.	
Write mixed numbers.	2		4.NF 3 Understand a fraction $\frac{a}{b}$ with $a > b$ as a sum of fractions $\frac{1}{b}$. c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
Recognize equivalent fractions (for example, $\frac{1}{2} = \frac{3}{6}$).	1, 8	3.NF 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.	
Compare fractions with like denominators, using the signs $<$, $>$, and $=$.	8	3.NF 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	
Know and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.	8		
Read and write decimals to the hundredths.	6, 8		5.NBT 3. Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (\frac{1}{10}) + 9 \times (\frac{1}{100}) + 2 \times (\frac{1}{1000})$.
III. Money			

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Write amounts of money using \$ and ¢ signs, and the decimal point.	2		
Make change, using as few coins as possible.	2		
Add and subtract amounts of money.	2		2.MD 8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?
Multiply and divide amounts of money by small whole numbers.	2		2.MD 8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?
IV. Computation			
A. Addition			
Mentally estimate a sum.	4, 8		
Use mental computation strategies.	8	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	
Addition with and without regrouping; find the sum (up to 10,000) of any two whole numbers.	4, 6	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	4.NBT 4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
B. Subtraction			
Understand addition and subtraction as inverse operations; use addition to check subtraction.	1	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	
Review and practice basic subtraction facts.	1, 4	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	
Mentally estimate the difference.	4		
Use mental computation strategies.	8	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Subtraction with and without regrouping: given two whole numbers of 10,000 or less, find the difference.	1, 4	3.NBT 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	
C. Multiplication			
Master basic multiplication facts to 10×10 .	1, 4	3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	
Mentally multiply, by 10, 100, and 1,000.	8	3.NBT 3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.	
Multiply two whole numbers, with and without regrouping, in which one factor is 9 or less and the other is a multi-digit number up to three digits.	6, 7, 8	3.OA 5. Apply properties of operations as strategies to multiply and divide. ² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)	4.NBT 5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
Write numbers in expanded form using multiplication, for example: $9,278 = (9 \times 1,000) + (2 \times 100) + (7 \times 10) + 8$.	8		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
Estimate a product.	4		
Solve word problems involving multiplication.	2, 4	3.OA 3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	
D. Division			

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Understand multiplication and division as inverse operations.	1, 8	3.OA 6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8. 3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	
Know the meaning of dividend, divisor, and quotient.	2		6.EE 2. Write, read, and evaluate expressions in which letters stand for numbers. b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.
Know basic division facts to $100 \div 10$.	1	3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	
Know that you cannot divide by 0.	7		
Know that any number divided by 1 = that number.	7		
Divide two- and three-digit dividends by one-digit divisors.	1, 4		4.NBT 6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
Solve division problems with remainders.	1, 4	3.OA 3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	4.NBT 6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Check division by multiplying (and adding remainder).	1		
E. Solving Problems and Equations			
Solve two-step word problems.	2	3.OA 8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
Solve equations in the form of ____ \times 9 = 63; $81 \div$ ____ = 9.	4	3.OA 4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \div 3$, $6 \times 6 = ?$. 3.OA 6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.	
Solve problems with more than one operation, as in $(43 - 32) \times (5 + 3) =$ ____.	4	3.OA 8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
Read and write expressions that use parentheses to indicate order of multiple operations.	6, 7, 8	3.OA 5. Apply properties of operations as strategies to multiply and divide. ² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)	

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
V. Measurement			
A. Linear Measure			
Make linear measurements in yards, feet, and inches; and, in centimeters and meters.	5		<p>2.MD 1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p>2.MD 4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</p>
<p>Know that one foot = 12 inches; one yard = 36 inches; 3 feet = 1 yard;</p> <p>1 meter = 100 centimeters; 1 meter is a little more than one yard.</p>	5, 7		<p>4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i></p>
Measure and draw line segments in inches (to 1/4 inch), and in centimeters.	5	3.MD 4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.	
Estimate linear measurements, then measure to check estimates.	1, 4		2.MD 3. Estimate lengths using units of inches, feet, centimeters, and meters.
B. Weight			
Compare weights of objects using a balance scale.	5		
Estimate and measure weight in pounds and ounces; grams and kilograms.	4		
Know abbreviations: lb., oz., g, kg	2		
C. Capacity (volume)			

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Estimate and measure liquid capacity in cups, pints, quarts, gallons, and liters.	4	3.MD 2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.	
Know that 1 quart = 2 pints; 1 gallon = 4 quarts.	7		4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i>
Compare U.S. and metric liquid volumes: quart and liter (one liter is a little more than one quart).	7		4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i>
D. Temperature			
Measure and record temperature in degrees Fahrenheit and Celsius.	2, 5		
Know the degree sign: °	2		
Identify freezing point of water as 32° F = 0° C.	7		
E. Time			
Read a clock face and tell time to the minute as either a.m. or p.m.; tell time in terms of both “minutes before” and “minutes after” the hour.	2, 5	3.MD 1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve problems on elapsed time (how much time has passed?).	2, 4	3.MD 1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	
Using a calendar, identify the date, day of the week, month, and year.	2, 5		
Write the date using words (for name of month) and numbers, and only numbers.	2		
VI. Geometry			
Identify lines as horizontal, vertical, perpendicular, or parallel.	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 4.G 2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
Name lines and line segments (for example, line AB; segment CD).	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
Polygons: recognize vertex (plural: vertices); identify sides as line segments (for example, side CD); identify pentagon, hexagon, and octagon (regular).	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
Identify angles by letter names (for example, /_____ABC); identify a right angle; know that there are four right angles in a square or rectangle.	7		4.MD 5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

Core Knowledge Sequence Grade 3	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Compute area in square inches (in ²) and square centimeters (cm ²).	6, 7, 8	<p>3.MD 5. Recognize area as an attribute of plane figures and understand concepts of area measurement.</p> <ul style="list-style-type: none"> a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. <p>3.MD 6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).</p> <p>3.MD 7. Relate area to the operations of multiplication and addition.</p> <ul style="list-style-type: none"> a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole- number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems. 	
Recognize and draw congruent figures; identify a line of symmetry, and create symmetric figures.	7		4.G 3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.
Identify solid figures: sphere, cube, rectangular solid, pyramid, cone, cylinder.	7		K.G 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Numbers and Number Sense			
Read and write numbers (in digits and words) up to nine digits.	2	4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	
Recognize place value up to hundred millions.	6	4. NBT. 1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.	
Order and compare numbers to 999,999,999 using the signs $<$, $>$, and $=$.	8	4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	6.EE 8. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
Write numbers in expanded form.	8	4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	
Use a number line; locate positive and negative whole numbers on a number line.	5		2. MD 6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
Round to the nearest ten; to the nearest hundred; to the nearest thousand.	6	4.NBT 3. Use place value understanding to round multi-digit whole numbers to any place.	

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify perfect squares (and square roots) to 144; recognize the square root sign: $\sqrt{\quad}$	2		
Identify Roman numerals from 1 to 1,000 (I - M), and identify years as written in Roman numerals.	2		
Create and interpret bar graphs and line graphs.	2, 4		3.MD 3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i>
Plot points on a coordinate plane (grid), using ordered pairs of positive whole numbers.	2, 4		<p>5.OA 3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. <i>For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</i></p> <p>6.NS 6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <ul style="list-style-type: none"> a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know the meanings of multiple, factor, prime number, and composite number.	2	4.OA 4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	
II. Fractions and Decimals			
A. Fractions			
Recognize fractions to one-twelfth.	2		3.NF 1. Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
Identify numerator and denominator.	2		3.NF 1. Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
Write mixed numbers; change improper fractions to mixed numbers and vice versa.	8	4.NF 3. Use place value understanding to round multi-digit whole numbers to any place. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.	
Recognize equivalent fractions (for example, $1/2 = 3/6$).	8	4.NF 1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	
Put fractions in lowest terms.	8		3.NF 3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Rename fractions with unlike denominators to fractions with common denominators.	8	4.NF 2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	
Compare fractions with like and unlike denominators, using the signs $<$, $>$, and $=$.	8	4.NF 2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model. 4.NF 5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.4 For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.	
Solve problems in the form of $\frac{2}{3} = \frac{8}{12}$	4	4.NF 2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Add and subtract fractions with like denominators.	1, 4	<p>4.NF 3. Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <ul style="list-style-type: none"> a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem. 	
Express simple outcomes as fractions (for example, 3 out of 4 as $3/4$).	8		
B. Decimals			
Read and write decimals to the nearest thousandth.	6		<p>5.NBT 3. Read, write, and compare decimals to thousandths.</p> <ul style="list-style-type: none"> a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
Read and write decimals as fractions (for example, $0.39 = 39/100$).	8	4.NF 6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.	
Write decimal equivalents for halves, quarters, eighths, and tenths.	8	4.NF 6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.	
Compare fractions to decimals using the signs $<$, $>$, and $=$.	8	4.NF 7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.	

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Write decimals in expanded form.	8		5.NBT 3. Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
Round decimals to the nearest tenth; to the nearest hundredth.	6		5.NBT 4. Use place value understanding to round decimals to any place.
Compare decimals, using the signs $<$, $>$, and $=$.	6	4.NF 7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.	
Read and write decimals on a number line.	6	4.NF 6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.	3.NF 2. Understand a fraction as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line. b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
Add and subtract with decimal numbers to two places.	1, 4		5.NBT 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
III. Money			
Solve problems involving making change in amounts up to \$100.00.	1, 4		2.MD 8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <i>Example: If you have 2 dimes and 3 pennies, how many cents do you have?</i>

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve multiplication and division problems with money.	1, 4	4.MD 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	
IV. Computation			
A. Multiplication			
Review and reinforce basic multiplication facts to 10×10 .	1, 4		3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
Mentally multiply by 10, 100, and 1,000.	1, 4	4.NBT 5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	3.NBT 3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations. 5.NBT 2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
Identify multiples of a given number; common multiples of two given numbers.	1, 4		
Multiply by two-digit and three-digit numbers.	1, 4	4.NBT 5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
Write numbers in expanded form using multiplication.	8	4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	
Estimate a product.	4		

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Use mental computation strategies for multiplication, such as breaking a problem into partial products, for example: $3 \times 27 = (3 \times 20) + (3 \times 7) = 60 + 21 = 81$.	8	4.NBT 5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
Check multiplication by changing the order of the factors.	1	4.OA 1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	
Multiply three factors in any given order.	1, 7		
Solve word problems involving multiplication.	2	4.OA 2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. 4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
B. Division			

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Understand multiplication and division as inverse operations.	6, 7, 8		<p>3.OA 2. Interpret whole-number quotients of whole numbers, e.g., interpret 56×8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$</p> <p>3.OA 4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.</p> <p>3.OA 5. Apply properties of operations as strategies to multiply and divide.2 Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</p> <p>3.OA 6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</p> <p>3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>
Review the meaning of dividend, divisor, and quotient.	1, 2, 4		<p>6.EE 2. Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.</p>
Review and reinforce basic division facts to $100 \div 10$.	1, 4		<p>3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify different ways of writing division problems: $28 \div 7$ $7 \overline{)28}$ $28/7$	8		
Identify factors of a given number; common factors of two given numbers.	8	4.OA 4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	
Review: you cannot divide by 0; any number divided by 1 = that number.	7		
Estimate the quotient.	4		
Divide dividends up to four-digits by one-digit and two-digit divisors.	1, 4	4.NBT 6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
Solve division problems with remainders.	1, 4	4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
Check division by multiplying (and adding remainder).	1		
C. Solving Problems and Equations			

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve two-step word problems.	1, 4	4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
Solve equations in the form of $___ \times 9 = 63$; $81 \div ___ = 9$.	6, 7, 8		<p>3.OA 4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \div 3$, $6 \times 6 = ?$.</p> <p>3.OA 5. Apply properties of operations as strategies to multiply and divide.² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</p> <p>3.OA 6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</p>
Solve problems with more than one operation, as in $(72 \div 9) \times (36 \div 4) = ___$	1, 4	4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
Equality properties Know that equals added to equals are equal. Know that equals multiplied by equals are equal.	7		

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Use letters to stand for any number, as in working with a formula (for example, area of rectangle: $A = L \times W$).	2		<p>6. EE 2. Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>a. Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation “Subtract y from 5” as $5 - y$.</i></p> <p>c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.</i></p>
V. Measurement			
Linear measure: estimate and make linear measurements in yards, feet, and inches (to $\frac{1}{8}$ in.); and in meters, centimeters, and millimeters.	4	4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two- column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...	
Weight: estimate and measure weight in pounds and ounces; grams and kilograms.	4	4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two- column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...	

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Capacity (volume): estimate and measure liquid capacity in teaspoons, tablespoons, cups, pints, quarts, gallons; and in milliliters and liters.	4	4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two- column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...	
<p>Know the following equivalences among U. S. customary units of measurement, and solve problems involving changing units of measurement:</p> <p>Linear measure</p> <p>1 ft. = 12 in.</p> <p>1 yd. = 3 ft. = 36 in.</p> <p>1 mi. = 5,280 ft.</p> <p>1 mi. = 1,760 yd.</p> <p>Weight</p> <p>1 lb. = 16 oz.</p> <p>1 ton = 2,000 lb.</p> <p>Capacity (volume)</p> <p>1 cup = 8 fl. oz. (fluid ounces)</p> <p>1 pt. = 2 c.</p> <p>1 qt. = 2 pt.</p> <p>1 gal. = 4 qt.</p>	2	4.MD 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Know the following equivalences among metric units of measurement, and solve problems involving changing units of measurement:</p> <p>Linear measure</p> <p>1 cm = 10 mm (millimeters)</p> <p>1 m = 1,000 mm</p> <p>1 m = 100 cm</p> <p>1 km = 1,000 m</p> <p>Mass</p> <p>1 cg (centigram) = 10 mg (milligrams)</p> <p>1 g = 1,000 mg</p> <p>1 g = 100 cg</p> <p>1 kg = 1,000 g</p> <p>Capacity (volume)</p> <p>1 cl (centiliter) = 10 ml (milliliters)</p> <p>1 liter = 1,000 ml</p> <p>1 liter = 100 cl</p>	2	4.MD 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	
Time: solve problems on elapsed time.	2	4.MD 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	
VI. Geometry			
Identify and draw points, segments, rays, lines.	5	4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	
Identify and draw lines: horizontal; vertical; perpendicular; parallel; intersecting.	7	4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Identify angles; identify angles as right, acute, or obtuse.	7	<p>4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.</p> <p>4.G 2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.</p> <p>4.MD 5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:</p> <ul style="list-style-type: none"> a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1/360$ of a circle is called a “one-degree angle,” and can be used to measure angles. b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. 	
Identify polygons: Triangle, quadrilateral, pentagon, hexagon, and octagon (regular) Parallelogram, trapezoid, rectangle, square	7		
Identify and draw diagonals of quadrilaterals.	7		3.G 1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
Circles: Identify radius (plural: radii) and diameter; radius = $1/2$ diameter	7		

Core Knowledge Sequence Grade 4	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Recognize similar and congruent figures.	7		8.G 2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
Know the formula for the area of a rectangle (Area = length x width) and solve problems involving finding area in a variety of square units (such as mi ² ; yd ² ; ft ² ; in ² ; km ² ; m ² ; cm ² ; mm ²)	7	4.MD 3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.	
Compute volume of rectangular prisms in cubic units (cm ³ , in ³).	7		5.MD 3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Numbers and Number Sense			
Read and write numbers (in digits and words) up to the billions.	1, 2		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
Recognize place value up to billions.	6	5.NBT 1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	
Order and compare numbers to 999,999,999 using the signs <, >, and =.	8		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
Write numbers in expanded form.	8		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Integers Locate positive and negative integers on a number line. Compare integers using the symbols $<$, $>$, $=$. Know that the sum of an integer and its opposite is 0. Add and subtract positive and negative integers.	7		<p>6.NS 5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.</p> <p>6.NS 6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <ul style="list-style-type: none"> a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
Using a number line, locate positive and negative whole numbers.	5		<p>6.NS 6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <ul style="list-style-type: none"> a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Round to the nearest ten; to the nearest hundred; to the nearest thousand; to the nearest hundred thousand.	6		3.NBT 1 Use place value understanding to round whole numbers to the nearest 10 or 100. 4.NBT 3 Use place value understanding to round multi-digit whole numbers to any place.
Exponents Review perfect squares and square roots to 144; recognize the square root sign, $\sqrt{}$. Using the terms squared and cubed and to the n th power, read and evaluate numerical expressions with exponents. Identify the powers of ten up to 10^6 .	7	5.NBT 2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	6.EE 1. Write and evaluate numerical expressions involving whole-number exponents. 8.EE 3. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9 , and determine that the world population is more than 20 times larger.
Identify a set and the members of a set, as indicated by $\{ \}$.	2	5.OA 1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	
Identify numbers under 100 as prime or composite.	7		4.OA 4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
Identify prime factors of numbers to 100 and write using exponential notation for multiple primes.	7		4.OA 4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
Determine the greatest common factor (GCF) of given numbers.	6, 7, 8		6.NS 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i>

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Determine the least common multiple (LCM) of given numbers.	6, 7, 8		6.NS 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i>
II. Ratio and Percent			
A. Ratio			
Determine and express simple ratios.	8		6.RP 1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.” 6.RP 2. Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”
Use ratio to create a simple scale drawing.	8		6.RP 3. a. Make tables of equivalent ratios relating quantities with whole- number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
Ratio and rate: solve problems on speed as a ratio, using the formula $S = d/t$ (or $D = r \times t$).	1, 4		6.RP 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. b. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i>
B. Percent			

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Recognize the percent sign (%) and understand percent as “per hundred.”	2		6.RP 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
Express equivalences between fractions, decimals, and percents, and know common equivalences: $1/10 = 10\%$ $1/4 = 25\%$ $1/2 = 50\%$ $3/4 = 75\%$	8		3.NF 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model. 4.NF 5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. <i>For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.</i> 6.RP3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
Find the given percent of a number.	2, 4		
III. Fractions and Decimals			
A. Fractions			
Determine the least common denominator (LCD) of fractions with unlike denominators.	6, 7, 8		6.NS 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i>

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Recognize equivalent fractions (for example, $\frac{1}{2} = \frac{3}{6}$).	8	5.NF 1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{(ad + bc)}{bd}$.)	
Put fractions in lowest terms.	6, 7, 8		6.NS 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i>
Compare fractions with like and unlike denominators, using the signs $<$, $>$, and $=$.	8	5.NF 5. Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.	
Identify the reciprocal of a given fraction; know that the product of a given number and its reciprocal = 1.	7		
Add and subtract mixed numbers and fractions with like and unlike denominators.	1, 4	5.NF 1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{(ad + bc)}{bd}$.)	
Multiply and divide fractions.	1, 4	5.NF 4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product $(\frac{a}{b}) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \times \frac{1}{b}$. For example, use a visual fraction model to show $(\frac{2}{3}) \times 4 = \frac{8}{3}$, and create a story context for this equation. Do the same with $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$. (In general, $(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}$.) b. Find the area of a rectangle with fractional	4.NF 4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$. For example, use a visual fraction model to represent $\frac{5}{4}$ as the product $5 \times (\frac{1}{4})$, recording the conclusion by the equation $\frac{5}{4} = 5 \times (\frac{1}{4})$. b. Understand a multiple of $\frac{a}{b}$ as a multiple of $\frac{1}{b}$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (\frac{2}{5})$ as $6 \times (\frac{1}{5})$, recognizing this product as $\frac{6}{5}$. (In general, $n \times (\frac{a}{b}) = \frac{n \times a}{b}$.)

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
		<p>side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p> <p>5.NF 5. Interpret multiplication as scaling (resizing), by:</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.</p> <p>5.NF 7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> <p>a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</p> <p>b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</p> <p>c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$-cup servings are in 2 cups of raisins?</p>	<p>a)/b.)</p> <p>c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?</p>

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Add and subtract fractions with like and unlike denominators.	1, 4	5.NF 1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{(ad + bc)}{bd}$.)	
Add and subtract mixed numbers and fractions; multiply mixed numbers and fractions.	1, 4	<p>5.NF 1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{(ad + bc)}{bd}$.)</p> <p>5.NF 2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$, by observing that $\frac{3}{7} < \frac{1}{2}$.</p> <p>5.NF 3. Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret $\frac{3}{4}$ as the result of dividing 3 by 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $\frac{3}{4}$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</p> <p>5 NF 6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p>	
Round fractions to the nearest whole number.	6		

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Write fractions as decimals (e.g., $\frac{1}{4} = 0.25$; $\frac{17}{25} = 0.68$; $\square = 0.3333\ldots$ or 0.33, rounded to the nearest hundredth).			4.NF 6. Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i>
B. Decimals			
Read, write, and order decimals to the nearest ten-thousandth.	6	5.NBT 3. Read, write, and compare decimals to thousandths.	
Write decimals in expanded form.	8	5.NBT 3. Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.	
Read and write decimals on a number line.	1		4.NF 6 Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i>
Round decimals (and decimal quotients) to the nearest tenth; to the nearest hundredth; to the nearest thousandth.	4	5.NBT 4. Use place value understanding to round decimals to any place.	
Estimate decimal sums, differences, and products by rounding.	4		
Add and subtract decimals through ten-thousandths.	1, 4	5.NBT 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	
Multiply decimals: by 10, 100, and 1,000; by another decimal.	1, 4	5.NBT 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Divide decimals by whole numbers and decimals.	1, 4	5.NBT 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	
IV. Computation			
A. Addition			
Commutative and associative properties: know the names and understand the properties.	6, 7, 8		1.OA 3. Apply properties of operations as strategies to add and subtract. ³ <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</i>
B. Multiplication			
Commutative, associative, and distributive properties: know the names and understand the properties.	7		3.OA 5. Apply properties of operations as strategies to multiply and divide. ² <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</i>
Multiply two factors of up to four digits each.	1, 4	5.NBT 5. Fluently multiply multi-digit whole numbers using the standard algorithm.	
Write numbers in expanded form using multiplication.	8		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
Estimate a product.	4		
Use mental computation strategies for multiplication, such as breaking a problem into partial products, for example: $3 \times 27 = (3 \times 20) + (3 \times 7) = 60 + 21 = 81$.	2, 8		4.NBT 5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve word problems involving multiplication.	1, 2, 4	5.NF 6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	
C. Division			
Understand multiplication and division as inverse operations.	6, 7, 8	5.NBT 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	<p>3.OA 2. Interpret whole-number quotients of whole numbers, e.g., interpret 56×8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$</p> <p>3.OA 4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.</p> <p>3.OA 5. Apply properties of operations as strategies to multiply and divide.² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</p> <p>3.OA 6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</p> <p>3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>
Know what it means for one number to be “divisible” by another number.	7		
Know that you cannot divide by 0; that any number divided by 1 = that number.	7		
Estimate the quotient.	4		

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know how to move the decimal point when dividing by 10, 100, or 1,000.	7	5.NBT 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	
Divide dividends up to four digits by one-digit, two-digit, and three-digit divisors.	1, 4	5.NBT 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
Solve division problems with remainders; round a repeating decimal quotient.	1, 4		4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Check division by multiplying (and adding remainder).	1		4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
D. Solving Problems and Equations			
Solve word problems with multiple steps.	1, 2, 4		4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve problems with more than one operation.	1, 4		4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
V. Measurement			
Convert to common units in problems involving addition and subtraction of different units.	8	5.MD 1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.	
Time: Solve problems on elapsed time; regroup when multiplying and dividing amounts of time.	1, 2, 4		4.MD 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
VI. Geometry			
Identify and draw points, segments, rays, lines.	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
Identify and draw lines: horizontal; vertical; perpendicular; parallel; intersecting.	7		4.G 1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
Measure the degrees in angles, and know that right angle = 90° acute angle: less than 90° obtuse angle: greater than 90° straight angle = 180°	7		4.MD 6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
Identify and construct different kinds of triangles: equilateral, right, and isosceles.	7		7.G 2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know what it means for triangles to be congruent.	7		8.G 2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
Identify polygons: triangle, quadrilateral, pentagon, hexagon, and octagon parallelogram, trapezoid, rhombus, rectangle, square	7	5. G 3. Understand that attributes belonging to a category of two-dimensional figures also belongs to all sub categories of that category. <i>For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</i> 5.G 4. Classify two-dimensional figures in a hierarchy based on properties.	
Know that regular polygons have sides of equal length and angles of equal measure.	7	5. G 3. Understand that attributes belonging to a category of two-dimensional figures also belongs to all sub categories of that category. <i>For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</i>	
Identify and draw diagonals of polygons.	7		
Circles Identify arc, chord, radius (plural: radii), and diameter (radius = $\frac{1}{2}$ diameter). Using a compass, draw circles with a given diameter or radius. Find the circumference of a circle using the formulas $C = \pi d$, and $C = 2 \pi r$, using 3.14 as the value of pi.	5		7.G 4. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Area</p> <p>Review the formula for the area of a rectangle (Area = length x width) and solve problems involving finding area in a variety of square units (such as mi²; yd²; ft²; in²; km²; m²; cm²; mm²).</p> <p>Find the area of triangles, using the formula $A = \frac{1}{2}(b \times h)$.</p> <p>Find the area of a parallelogram using the formula $A = b \times h$.</p> <p>Find the area of an irregular figure (such as a trapezoid) by dividing into regular figures for which you know how to find the area.</p> <p>Compute volume of rectangular prisms in cubic units (cm³, in³), using the formula $V = l \times w \times h$.</p> <p>Find the surface area of a rectangular prism.</p>	<p>6, 7, 8</p>	<p>5.MD 3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <ul style="list-style-type: none"> a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units. <p>5.MD 4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.</p> <p>5.NF 4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <ul style="list-style-type: none"> b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. <p>5.MD 5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <ul style="list-style-type: none"> a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole- number edge lengths in the context of solving real world and mathematical problems. c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems. 	<p>7.G 6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
VII. Probability and Statistics			
Understand probability as a measure of the likelihood that an event will happen; using simple models, express probability of a given event as a fraction, as a percent, and as a decimal between 0 and 1.	4		7.SP 5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
Collect and organize data in graphic form (bar, line, and circle graphs).	4		7.SP 6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
Solve problems requiring interpretation and application of graphically displayed data.	1, 4	5.MD 2. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.	4.MD 2. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. <i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i>
Find the average (mean) of a given set of numbers.	4		
Plot points on a coordinate plane, using ordered pairs of positive and negative whole numbers.	1, 4	5.G 1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate). 5.G 2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	

Core Knowledge Sequence Grade 5	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Graph simple functions.	4		8.F 1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
VIII. Pre Algebra			
Recognize variables and solve basic equations using variables.	1, 2		6.EE 6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
Write and solve equations for word problems.	1, 2	5.OA 2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.	6.EE 5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
Find the value of an expression given the replacement values for the variables.	8	5.OA 2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.	

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Numbers and Number Sense			
Read and write numbers (in digits and words) up to the trillions.	2		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
Recognize place value up to hundred-billions.	6		4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Integers (review):</p> <p>Locate positive and negative integers on a number line.</p> <p>Compare integers using $<$, $>$, $=$.</p> <p>Know that the sum of an integer and its opposite is 0.</p> <p>Add and subtract positive and negative integers.</p>	<p>7</p>	<p>6.NS 7. Understand ordering and absolute value of rational numbers.</p> <ul style="list-style-type: none"> a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right. b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C. c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars. d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars. <p>6.NS 6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <ul style="list-style-type: none"> a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. b. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. 	<p>7.EE 3. Solve multi-step real-life and mathematical problems posed with positive and negative numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.</p>

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p><i>Continued:</i></p> <p>Integers (review):</p> <p>Locate positive and negative integers on a number line.</p> <p>Compare integers using $<$, $>$, $=$.</p> <p>Know that the sum of an integer and its opposite is 0.</p> <p>Add and subtract positive and negative integers.</p>	7	<p>6.NS 6. Continued...</p> <p>c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a</p> <p>6.EE 8. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p>	
Determine whether a number is a prime number or composite number.	7		4.OA 4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
Round to the nearest ten; to the nearest hundred; to the nearest thousand; to the nearest hundred thousand; to the nearest million	1, 4		5.NBT 1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1/10$ of what it represents in the place to its left.

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Compare and order whole numbers, mixed numbers, fractions, and decimals, using the symbols $<$, $>$, $=$.	8		<p>3.NF 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p> <p>4.NF 2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p> <p>4.NBT 2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>5.NBT 3. Read, write, and compare decimals to thousandths.</p> <p>b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p>
Determine the greatest common factor (GCF) of given numbers.	6, 7, 8	6.NS 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$.	
Determine the least common multiple (LCM) of given numbers.	6, 7, 8	6.NS 4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$.	

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Exponents: Review squares and square roots. Using the terms squared and cubed and to the nth power, read and evaluate numerical expressions with exponents. Review powers of ten. Write numbers in expanded notation using exponents.	7		8.EE 2. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.
II. Ratio, Percent, and Proportion			
A. Ratio and Proportion			
Solve proportions, including word problems involving proportions with one unknown.	2	6.RP 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?	
Use ratios and proportions to interpret map scales and scale drawings.	2, 4		
Set up and solve proportions from similar triangles.	1, 4		8.EE 6. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b .
Understand the justification for solving proportions by cross-multiplication.	7		
B. Percent			
Convert between fractions, decimals, and percents.	8		4.NF 6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Find the given percent of a number, and find what percent a given number is of another number.	8	6.RP3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.	
Solve problems involving percent increase and decrease.	8		7.RP 3. Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
Find an unknown number when a percent of the number is known.	8	6.RP 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.	
Use expressions with percents greater than 100% and less than 1%.	8		
III. Computation			
A. Addition			

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Addition, commutative and associative properties: know the names and understand the properties.</p> <p>Understand addition and subtraction as inverse operations.</p> <p>Add and subtract with integers, fractions and decimals, both positive and negative.</p>	7		<p>7.NS 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p> <ul style="list-style-type: none"> a. Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged. b. Understand $p + q$ as the number located a distance q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. d. Apply properties of operations as strategies to add and subtract rational numbers. <p>7.EE 4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p> <ul style="list-style-type: none"> a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width? b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.
B. Multiplication			

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Commutative, associative, and distributive properties: know the names and understand the properties.	6, 7, 8		3.OA 5. Apply properties of operations as strategies to multiply and divide. ² <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.)</i> Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)
Multiply multi-digit factors, with and without a calculator.	1, 4		5.NBT 5. Fluently multiply multi-digit whole numbers using the standard algorithm.
Estimate a product.	4		
Multiply with integers, fractions, and decimals, both positive and negative.	6, 7, 8	6.NS 3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	7.NS 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts. c. Apply properties of operations as strategies to multiply and divide rational numbers
Distributive property for multiplication over addition or subtraction, that is, $A \times (B+C)$ or $A \times (B-C)$: understand its use in procedures such as multi-digit multiplication.	6, 7, 8		
C. Division			

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Understand multiplication and division as inverse operations.	6, 7, 8		<p>3.OA 2. Interpret whole-number quotients of whole numbers, e.g., interpret 56×8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$</p> <p>3.OA 4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.</p> <p>3.OA 5. Apply properties of operations as strategies to multiply and divide.² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</p> <p>3.OA 6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</p> <p>3.OA 7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p> <p>5.NBT 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>
Estimate the quotient.	4		
Divide multi-digit dividends by up to three-digit divisors, with and without a calculator.	1, 4	6.NS 2. Fluently divide multi-digit numbers using the standard algorithm.	

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Divide with integers, fractions, or decimals, both positive and negative.	1, 4	6NS 1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?	7.NS 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts. c. Apply properties of operations as strategies to multiply and divide rational numbers. d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
D. Solving Problems and Equations			
Solve word problems with multiple steps.	2		4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. 7.NS 3. Solve real-world and mathematical problems involving the four operations with rational numbers.
Solve problems with more than one operation, according to order of operations (with and without a calculator).	2		4.OA 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
IV. Measurement			

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve problems requiring conversion of units within the U. S. Customary System, and within the metric system.	8	6.RP 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	
Associate prefixes used in metric system with quantities: kilo = thousand hecto = hundred deka = ten deci = tenth centi = hundredth milli = thousandth	8		
Time: solve problems on elapsed time; express parts of an hour in fraction or decimal form.	5, 8		4.MD 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
V. Geometry			
Identify and use signs that mean congruent \cong similar \sim parallel \parallel perpendicular \perp	2		

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Angles: Identify and measure the degrees in angles (review terms: right, acute, obtuse, straight). Bisect an angle. Construct an angle congruent to a given angle. Construct a figure congruent to a given figure, using reflection over a line of symmetry, and identify corresponding parts. Show how congruent plane figures can be made to correspond through reflection, rotation, and translation.	7		4.MD 7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. 8.G 1. Verify experimentally the properties of rotations, reflections, and translations: a. Lines are taken to lines, and line segments to line segments of the same length b. Angles are taken to angles of the same measure. c. Parallel lines are taken to parallel lines. 8.G 4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
Triangles: Know that the sum of the measures of the angles of a triangle is 180° . Construct different kinds of triangles. Know terms by which we classify kinds of triangles: by length of sides: equilateral, isosceles, scalene by angles: right, acute, obtuse	7		7.G 2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle. 8.G 5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i>
Identify congruent angles and sides, and axes of symmetry, in parallelograms, rhombuses, rectangles, and squares.	7		High school

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
<p>Find the area (A) and perimeter (P) of plane figures, or given the area or perimeter find the missing dimension, using the following formulas:</p> <p>rectangle $A = lw$ $P = 2(l + w)$</p> <p>square $A = s^2$ $P = 4s$</p> <p>triangle $A = \frac{1}{2}bh$ $P = s_1 + s_2 + s_3$</p> <p>parallelogram $A = bh$ $P = 2(b + s)$</p>	2	<p>6.G 1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.</p> <p>6.G 4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.</p>	
<p>Circles:</p> <p>Identify arc, chord, radius (plural: radii), and diameter; know that radius = $\frac{1}{2}$ diameter.</p> <p>Using a compass, draw circles with a given diameter or radius.</p> <p>Solve problems involving application of the formulas for finding the circumference of a circle: $C = \pi d$, and $C = 2\pi r$, using 3.14 as the value of pi.</p> <p>Find the area of a circle using the formula $A = \pi r^2$</p>	5, 7		<p>7.G 4. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p>

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Find volume of rectangular solids, or given the volume find a missing dimension, using the formulas $V = lwh$, or $V = bh$ (in which b = area of base).	6, 7, 8	6.G 2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	<p>5. MD 3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p>5.MD 5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <ul style="list-style-type: none"> a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems. c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.
VI. Probability and Statistics			
Find the range and measures of central tendency (mean, median, and mode) of a given set of numbers.	1, 4	6.SP 3. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	
Understand the differences among the measures of central tendency and when each might be used.	7	<p>6.SP 5. Summarize numerical data sets in relation to their context, such as by:</p> <ul style="list-style-type: none"> d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered. 	

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Understand the use of a sample to estimate a population parameter (such as the mean), and that larger samples provide more stable estimates.	4	6.SP 5. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	<p>7.SP 1. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.</p> <p>7.SP 2. Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be</p> <p>7.SP 4. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</p>
Represent all possible outcomes of independent compound events in an organized way and determine the theoretical probability of each outcome.	1, 4	<p>6.SP 5 Summarize numerical sets in relation to their context, such as by:</p> <ul style="list-style-type: none"> a. Reporting the number of observations b. Describing the nature of the attribute under investigation, including how it was measured and its unit of measurement. 	<p>7.SP 7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p> <ul style="list-style-type: none"> a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected. b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Compute the probability of any one of a set of disjoint events as the sum of their individual probabilities.	1, 4		<p>7.SP 7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p> <ul style="list-style-type: none"> a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected. b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies? <p>7.SP 8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</p> <ul style="list-style-type: none"> a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event. c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?
Solve problems requiring interpretation and application of graphically displayed data.	4	6.SP 2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Given a set of data, find the mean, median, range, and mode.	4	<p>6.SP 5. Summarize numerical data sets in relation to their context, such as by:</p> <ul style="list-style-type: none"> c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. 	
Construct a histogram; a tree diagram.	4	6.SP 4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	7.Sp 8 8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
<p>Coordinate plane:</p> <p>Plot points on a coordinate plane, using ordered pairs of positive and negative whole numbers.</p> <p>Use the terms origin (0,0), x-axis, and, y-axis.</p> <p>Graph simple functions and solve problems involving use of a coordinate plane.</p>	4	<p>6.SP 4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</p> <p>6.NS 6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <ul style="list-style-type: none"> b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. <p>6.NS 8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p> <p>6.G 3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.</p>	8.F 1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
VII. Pre-Algebra			
Recognize uses of variables and solve linear equations in one variable.	6, 7, 8	6.EE 6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	8.EE 7. Solve linear equations in one variable. <ul style="list-style-type: none"> a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers). b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
Solve word problems by assigning variables to unknown quantities, writing appropriate equations, and solving them.	2, 4	6.EE 2. Write, read, and evaluate expressions in which letters stand for numbers. 6.EE 7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.	
Find the value for an expression, given replacement values for the variables; for example, what is $7/x - y$ when x is 2 and y is 10?	8	6.EE 2 Write, read, and evaluate expressions in which letters stand for numbers. <ul style="list-style-type: none"> a. Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as $5 - y$. c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole- number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$. 	

Core Knowledge Sequence Grade 6	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Simplify expressions with variables by combining like terms.	8	<p>6.EE 2. Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.</p>	
Understand the use of the distributive property in variable expressions such as $2x(2y + 3)$.	6, 7, 8	<p>6.EE 3. Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.</p>	<p>7.EE 2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”</p> <p>7.SP 3. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.</p>

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Pre Algebra			
A. Properties of the Real Numbers			
Know and use the associative, commutative, and distributive properties by name and in simplifying expressions involving numbers and variables.	6, 7, 8		3.OA 5. Apply properties of operations as strategies to multiply and divide. ² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)
Understand absolute value and evaluate expressions such as $ 2x - 3 + 3x$.	7		6.NS 7. Understand ordering and absolute value of rational numbers. a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i> b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. <i>For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C.</i> c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. <i>For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars.</i> d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.
B. Linear Applications and Proportionality			

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know the concept of slope.	7	<p>7.RP 2 Recognize and represent proportional relationships between quantities.</p> <ul style="list-style-type: none"> a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$. d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate. 	
Translate situations of proportionality into equations of the form $y = mx$, where m is the constant of proportionality or slope; specifically know and understand $d = rt$ and $i = prt$.	7	<p>7.RP 2. Recognize and represent proportional relationships between quantities.</p> <ul style="list-style-type: none"> c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$. 	
Show situations of constant proportionality as a line on the coordinate plane.	4	<p>7.RP 2. Recognize and represent proportional relationships between quantities.</p> <ul style="list-style-type: none"> a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. 	

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Introduce the concept of a function and determine the equation of a linear function given its slope and intercepts in the form $y = mx + b$.	2		<p>8.F.1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.</p> <p>8.F.3. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. <i>For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.</i></p>
Estimate the values of b and m from a given linear graph.	4		
C. Polynomial Arithmetic			
Add, subtract, multiply, and divide monomials and polynomials (divide polynomials by monomials only).	1, 4		A-APR. 1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
Factor binomials that have a common monomial factor.	1, 4		A-SSE. 2 Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.
D. Equivalent Equations and Inequalities			

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Review equality properties for equations.	7		<p>6.EE 4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.</p> <p>6.EE 5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> <p>A-SSE 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression</p> <ul style="list-style-type: none"> a. Factor a quadratic expression to reveal the zeros of the function it defines. b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. c. Use the properties of exponents to transform expressions for exponential functions. For example the expression 1.15^t can be rewritten as $(1.151/12)^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.
Know that addition or subtraction of the same value from both sides of an inequality maintains the inequality	7		
Know that multiplying or dividing both sides of an inequality by a positive number maintains the inequality, but multiplying or dividing by a negative number reverses the inequality; be able to show why using a number line.	7		
Simplify and solve linear equations in one variable such as $3(2x - 5) + 4x = 12(x + 5)$.	1, 4		6.EE 6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Simplify and graph solutions to linear inequalities in one variable such as $3(2x - 5) + 4x \leq 12(x + 5)$.	8		<p>A-REI. 3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.</p> <p>A-REI. 4 Solve quadratic equations in one variable.</p> <p>a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.</p> <p>b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.</p>
E. Integer Exponents			
Know the meaning of an exponent n when n is positive or negative.	7		
Know that a non-zero number to the zero power is one.	7		
Understand why a negative number to an even power is positive and a negative number to odd power is negative.	7		
Know the multiplication properties of exponents: Product of powers: $(a^m)(a^n) = a^{(m+n)}$ Power of a power: $(a^m)^n = a^{mn}$ Power of a product: $(ab)^n = (a^n)(b^n)$.	7		
Convert decimal numbers to and from scientific notation.	8		8.EE 4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know the proper order of operations with exponents.	7		
II. Geometry			
A. Three-Dimensional Objects			
Describe and construct simple right prisms, cylinders, cones, and spheres using the concepts of parallel and perpendicular; calculate the surface areas and volumes of these objects.	4, 7	7.G 1. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	8.G 9. Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.
Know that the section created by the intersection of a plane and a sphere is a circle.	7		
Calculate the surface area of a sphere using the equation $SA = 4\pi r^2$.	2	7.G 1. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	
Calculate the volume of a sphere using the equation $V = (4/3)\pi r^3$.	6	7.G 6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	
B. Angle Pairs			
Construct parallel lines and a transversal using a compass and straight edge.	5		G-CO. 12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
Understand congruent angles, vertical angles, complementary angles, supplementary angles, adjacent angles, corresponding angles, and alternate interior and alternate exterior angles	7	7.G 5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	
C. Triangles			

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know that a triangle is determined by its three sides or by two sides and the included angle (SSS and SAS triangle congruence) and solve problems.	7		G-CO. 8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.
Use SSS to prove that the construction of the bisector of an angle is valid.	3		G-CO. 9 Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
Use SSS to prove that the construction of the perpendicular bisector of a segment is valid.	3		G-CO. 9 Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
Prove that the base angles of an isosceles triangle are congruent.	3		G-CO. 9 Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
Demonstrate that the sum of the interior angles of a triangle equals 180 degrees.	3		G-CO. 10 Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
Know that the shape of a triangle is determined by two (hence all three) of its angles (AA(A) triangle similarity) and solve related problems.	7		
Construct a circle that circumscribes a triangle using compass and straight edge.	5	7.G 4. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know and understand the Pythagorean Theorem and its converse and use it to find the length of the missing side of a right triangle and lengths of other line segments and, in some situations, empirically verify the Pythagorean theorem by direct measurement and a calculator.	3		8.G 6. Explain a proof of the Pythagorean Theorem and its converse. 8.G 7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
Use the Pythagorean Theorem to determine the exact ratios of the sides in 30-60-right triangles and isosceles right triangles.	7		8.G 7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
Determine the image of a triangle under translations, rotations, and reflections.	7		8.G 3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
D. Measurement			
Choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems.	8	7.RP 1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{1/2}{1/4}$ miles per hour, equivalently 2 miles per hour.	
Compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems (for example, miles per hour and feet per second, cubic inches to cubic centimeters).	8		4.MD 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i>

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Use measures expressed as rates (for example, speed, density) and measures expressed as products (for example, person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.	1		6.EE 9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.
Compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less common objects.	1, 4	7.G 6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	
Know how perimeter, area, and volume are affected by changes of scale.	7		
Estimate and compute the area of more complex or irregular two- and three-dimensional figures by breaking the figures down into more basic geometric objects.	4	7.G 3. Describe the two-dimensional figures that result from slicing three- dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	
Relate the changes in measurement with a change of scale to the units used (for example, square inches, cubic feet) and to conversions between units (1 square foot = 144 square inches [1 ft ² = 144 in ²], 1 cubic inch is approximately 16.38 cubic centimeters [1 in ³ = [16.36 cm ³]).	8		5.MD 1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
III. Probability and Statistics			
Show the relationship between two variables using a scatter-plot and describe the apparent relationship informally.	3, 4		8.SP1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

Core Knowledge Sequence Grade 7	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Find the upper and lower quartiles for a data set.	2, 4		S-ID. 2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
Understand that if p is the probability of an event occurring, $1 - p$ is the probability of the event not occurring.	7	7.SP 5. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $1/2$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	7.SP 5.
Understand the difference between independent and dependent events.	7		S-CP 2 Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
I. Algebra			
A. Properties of the Real Numbers			
Be able to raise a positive number to a fractional power and simplify appropriately, including rationalizing the denominator of a simple radical expression.	8		N-RN 1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define $5^{1/3}$ to be the cube root of 5
Know and use of the rules of exponents extended to fractional exponents.	7	8.EE 1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $32 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$.	
Use the definition of absolute value to solve equations such as $ 2x - 3 + 3x = 4x - 2$ and understand why “extraneous solutions” are not solutions at all.	7		6.NS 7. Understand ordering and absolute value of rational numbers. a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i> b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C . A-REI. 2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.
B. Relations, Functions, and Graphs (Two Variables)			
Be able to plot a set of ordered pairs and surmise a reasonable graph of which the points are a part.	4	8.EE 5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.	

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Be able to make a reasonable table of ordered pairs from a given function rule, plot the points, and surmise its graph.	4	8.F.2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.</i>	
Know that the points of intersections of two graphs are simultaneous solutions of the relations that define them and indicate approximate numerical solutions.	7	8.EE.8 Analyze and solve pairs of simultaneous linear equations. a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair	
C. Linear Equations and Functions (Two Variables)			
Graph linear equations by finding the x- and y-intercepts; for example, know that $2x + 3y = 4$ is linear and graph it using its intercepts.	7		F—IF. 7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.★ a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
Be able to convert between slope-intercept form ($y = mx + b$) and standard form ($ax + by = c$).	8	8.F.3. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.	
Write an equation for a line given two points or one point and its slope.	8		

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know lines are parallel or perpendicular from their slopes.	7		G-CO 1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
Find the equation of a line perpendicular to a given line that passes through a given point.	4		G-GPE. 5 Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
Understand and be able to graph the solution set of a linear inequality.	4		A-REI 12 Graph the solutions to a linear inequality in two variables as a half plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.
Solve a system of two linear equations in two variables algebraically and interpret the answer graphically.	2, 4	8.EE 8 Analyze and solve pairs of simultaneous linear equations. b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.	

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve a system of two linear inequalities in two variables and sketch the solution set.	2, 4	<p>8.F 2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.</p> <p>8.F 4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.</p> <p>8.F 5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally</p>	

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve word problems (including mixture, digit, and age problems) that involve linear equations.	2, 4	<p>8.SP 2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.</p> <p>8.SP 3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.</p> <p>8.SP 4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?</p>	
D. Arithmetic of Rational Expressions			
Factor second- and higher-degree polynomials when standard techniques apply, such as factoring the GCF out of all terms of a polynomial, the difference of two squares, and perfect squares trinomials.	8		<p>A-APR 2. Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.</p> <p>A-APR 3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.</p>

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Add, subtract, multiply, and divide rational expressions and express in simplest form.	1, 4	<p>8.NS 1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.</p> <p>8.NS 2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</p>	7.EE 1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
E. Quadratic Equations and Functions			
Solve quadratic equations in one variable by factoring or by completing the square.	1, 2, 4		N-CN. 7 Solve quadratic equations with real coefficients that have complex solutions.
Complete the square to write a quadratic expression as the difference of two squares.	1, 4		<p>A-SSE 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <ul style="list-style-type: none"> a. Factor a quadratic expression to reveal the zeros of the function it defines. b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. c. Use the properties of exponents to transform expressions for exponential functions. For example the expression $1.15t$ can be rewritten as $(1.151/12)12t \approx 1.01212t$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.
Graph quadratic functions by completing the square to find the vertex and know that their zeros (roots) are the x-intercepts.	7		

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Know the quadratic formula and be familiar with its proof by completing the square.	7		<p>A-SSE 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <ul style="list-style-type: none"> a. Factor a quadratic expression to reveal the zeros of the function it defines. b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. c. Use the properties of exponents to transform expressions for exponential functions. For example the expression $1.15t$ can be rewritten as $(1.151/12)^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.
Know how to clear fractions to solve equations that lead to linear or quadratic equations.	8		<p>A-SSE 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <ul style="list-style-type: none"> a. Factor a quadratic expression to reveal the zeros of the function it defines. b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. c. Use the properties of exponents to transform expressions for exponential functions. For example the expression $1.15t$ can be rewritten as $(1.151/12)^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.
Know how to use squaring to solve problems that lead to linear or quadratic equations.	8		<p>A-SSE 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <ul style="list-style-type: none"> a. Factor a quadratic expression to reveal the zeros of the function it defines. b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. c. Use the properties of exponents to transform expressions for exponential functions. For example the expression $1.15t$ can be rewritten as $(1.151/12)^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
Solve word problems, including physical problems such as the motion of an object under the force of gravity, and combined rate (work) problems.	2, 4		
II. Geometry			
A. Analytic Geometry			
Reinforce the knowledge of algebra with geometry and vice versa.	1		
Know that the midpoint of a line segment of any slope, projected perpendicularly onto the horizontal x-axis or vertical y-axis, will be the midpoint of its projection.	7		N-CN 6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.
Know the similar triangles connection (AA Similarity) with slope and that this is the tangent of the angle the line makes with the x-axis.	7	8.EE 6. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b .	
B. Introduction to Trigonometry			
Know that in a right triangle the cosine of an angle is the ratio of the adjacent side to the hypotenuse and the sine is the ratio of the opposite side to the hypotenuse.	7		G-SRT 7. Explain and use the relationship between the sine and cosine of complementary angles.
Know the values of the sine, cosine, and tangent of 0, 30, 45, 60, and 90 degrees and use a scientific calculator to determine the approximate value of any acute angle.	7		G-SRT 7. Explain and use the relationship between the sine and cosine of complementary angles. G-SRT 10. (+) Prove the Laws of Sines and Cosines and use them to solve problems.
Use a scientific calculator to determine the approximate value of an acute angle of a given sine, cosine, or tangent.	5		F-TF 9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems. G-SRT 7. Explain and use the relationship between the sine and cosine of complementary angles.

Core Knowledge Sequence Grade 8	CCSS MP	Common Core State Standards covered at CK Grade Level	Common Core State Standards covered above or below CK Grade Level
C. Triangles and Proofs			
Prove that the bisector of an angle is the set of all points equidistant from both sides.	3		G-CO 9. Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
Prove that any triangle inscribed in a circle with one side as the diameter is a right triangle.	3		G-CO 10. Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
Prove the Pythagorean Theorem.	3	8.G 6. Explain a proof of the Pythagorean Theorem and its converse. 8.G 7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. 8.G 8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	
Know that a line tangent to a circle is perpendicular to the radius at the point of tangency.	7		
Taking geometry as a model, understand the concept of a mathematical proof, as distinct from an opinion, an approximation, or a conjecture based on specific cases.	3	8.G 6. Explain a proof of the Pythagorean Theorem and its converse	
In geometry and elsewhere, understand that a single-counter example suffices to disprove a general assertion.	3		

FIRST GRADE LANGUAGE ARTS STANDARDS AND COURSE OF STUDY

Sensory Cognition (ability to use four sensory pathways to the mind)	Listening, Letter Formation Phonetics, Spelling	Speaking, Speech Vocabulary	Grammar/Syntax Composition	Reading/Comprehension Literature Resources
AUDITORY SKILLS	ORTHOGRAPHY	SPEAKING-SPEECH-VOCABULARY	SYNTAX - COMPOSITION	READING
ATTENTION & DISCRIMINATION <u>Master Auditory Sub-skills in Attention and Discrimination:</u> Loud / soft sounds High / low sounds Beginning (onset) sounds Medial Vowel sounds Ending consonant cluster sounds Riming sounds (vowels ending consonants) 42 elementary English sounds (phonemes) in isolation Recognize 42 sounds in words Distinguish 42 phonemes in syllables and words for oral encoding Recognize open syllable sounds Recognize closed syllable sounds AUDITORY MEMORY Recall 42 phonemes represented by 118 graphemes Recall sounds in sequence Recall words in spoken poetry and nursery rhymes Recall melodies and words from songs AUDITORY IMAGERY Recall phonemes related to mental images of the form and shape of corresponding letters (graphemes) Connect spoken sentences with mental images of meaning Connect spoken words with mental images related to meaning	LISTENING, LETTERS, PHONETICS SPELLING <u>Master Letter Formation & Phonetics</u> Listen to 42 spoken phonemes and write 71 associated graphemes (phonograms) by dictation Form 26 letters of the alphabet Write 71 English graphemes (correct spelling patterns) Adhere to margin lines Top Base line Base line Two dotted middle lines 2, 10, 8, and 4 on a clock face Space between individual letters Practice for spacing between words in a sentence Use sequencing for letter formation Recognize and use: Vowels / Consonants 2, 3, 4-letter spelling patterns Diphthongs / Digraphs Schwa vowel sounds vs. correct spelling Silent letters 118 spelling patterns to write K-3 vocabulary Written letters to represent speech sounds for thoughts Phonemes and graphemes for encoding, recoding, and decoding 850 words Phonemes & graphemes to spell, sound, and read 6 spelling words per day (30 per week / 850 per year) to achieve automaticity	<u>Master Speaking to:</u> Say 71 common phonograms Sequence and pronounce 42 sounds in explicit (in isolation) phonics instruction dictation Sequence and pronounce 42 sounds in spelling dictation Respond to Socratic instruction saying phonemes & graphemes to encode: 1-3 syllable words w/71 phonograms Articulate rules of spelling, plurals, and syllabication Recode (chorally) dictate words by phoneme, grapheme by grapheme) Pronounce schwa vowels as well as think to spell correct spelling sounds Pronounce words in isolation Speak to read original sentences to class Use various voice inflections Use rhythm Use accented syllables Be able to pronounce and use 4,000 to 24,000 words in sentences Use accurate pronunciation in oral reading Practice oral spelling with sounds only <u>Practice Speech Skills:</u> Speak, individually, in front of class in full sentences with correct grammar and syntax Answer questions in full sentences Give oral responses to questions Give oral directions Dramatize (tell) stories and plays	SYNTAX - COMPOSITION <u>Master Syntax and Composition Skills:</u> Write imaginatively from provocative pictures Write from ideas advanced by others Write original simple sentences using spelling / vocabulary words Learn the definition of a simple sentence Write sentences from dictated sentences which can be spelled correctly Write 3-4 sentence paragraphs: with topic sentence with 2 - 3 sentences about topic sentence Define, write, punctuate, and capitalize four kinds of sentences: Declarative Interrogative Imperative Exclamatory Classify four types of sentences: Subject - Intransitive Verb Subject - Transitive Verb - Object Subject - Linking Verb - Pred. Nom. Subject - Linking Verb - Pred. Adj. Recognize types of sentences in literature or other course work <u>Practice capitalization in composition</u> First word in sentence Names, initials, and titles Days of the week Months of the year Geographical names Names referring to Deity Names of holidays	Master Phonetics-Decoding Recode (read) 71 phoneme/grapheme relationships in dictated spelling lessons (<i>English spelling patterns</i>) Recognize and read letter names Read and comprehend 850 spelling words Read original sentences using spelling words (first in-context, decodable text) Blend and read spelling words in isolation with phonetics and rules Sound, read, and comprehend six spelling words per day Read classmates' written sentences Read open and closed syllables in words Read consonant clusters which are 2 or more elementary sounds Understand the alphabetic principle - that written or printed letters represent speech sounds Understand that words must be decoded / encoded accurately to permit the fluency required for comprehension LITERATURE / COMPREHENSION Beginning in the 10th week, read from books for knowledge and entertainment Attain fluency with printed words to free the mind for comprehension

Sensory Cognition [ability to use four sensory pathways to the mind]	Listening, Letter Formation Phonetics, Spelling	Speaking, Speech Vocabulary	Grammar/Syntax Composition	Reading/Comprehension Literature Resources
<p>LISTENING Recognize pronunciation with dialects and regionalisms Attend to stories read aloud Recognize various voice tones Recognize differences in voiced expressions Recognize accented syllables Recognize voiced inflections Recognize rhythm Listen to and follow oral instructions</p> <p>VISUAL MOTOR SKILLS: COORDINATION / DIRECTIONALITY Master Coordination & Directionality in: Accurate sense of directionality (up/down, left/right, top/bottom, under/over/on, around, middle, back/front, far/near, open/closed, inside/outside, above/below, ahead/behind) Form 26 letters of alphabet from oral instructions and visual checkpoints without a visual aid Adhere to margin lines Space between letters Use lined paper and posture Hold pencil properly to reduce stress Use lined paper correctly Recognizing difference between manuscript and book print Form graphemes (letters) to learn phonemes (sounds) Write letters while saying sounds</p>	<p>Use a mnemonics marking system to aid visual memory and auditory memory of spelling patterns Encode one, two, and three-syllable words from dictation Practice oral spelling, but with sounds Recognize syllable breaks Practice Make visual comparisons between dictation taken and given Note teacher corrections Recognize phonetic variations in irregularly spelled words Recognize dictionary pronunciation vs. correct spelling Learn exceptions to spelling rules where applicable Recognize and use accented syllables Spell words in literature, composition, or vocabulary</p> <p>RULES OF ORTHOGRAPHY PLURALS - SYLLABICATION, CAPITALIZATION - PUNCTUATION Master Spelling Rules -not fully stated q always followed by u (qu) c before e, i, or y says 's' g before e, i, or y may say 'j' Often double l, f, s, after a single vowel at end of one syllable word ck used after short vowel dge used after short vowel z used to say 'z' at beginning s never follows x Double consonants are both sounded for spelling s-h used at beginning of word and at end of a syllable</p>	<p>Read or recite poetry using proper cadence and rhythm Speak in appropriate cadence in choral readings Ask questions by addressing by name, the person spoken to, and raising the voice at the end Make oral announcements Talk about current news events Give oral book reports Eliminate incorrect or annoying "habits of speech" Participate in group singing: Accompanied Unaccompanied Hum melodies while listening to music</p> <p>VOCABULARY Master Vocabulary Necessary to: Sound, read, understand, and use 6 spelling words per day (30 per week / 850 per year) Understand and use words which are in the vocabulary of literature and other course work Identify, understand, chart, and use a variety of: Synonyms Antonyms Homonyms Homographs Paronyms Compound words Plurals Use common prefixes and suffixes Practice meaning and use of suffixes s, ed, ing, es, y, er, est, ness, less, ly, ful</p>	<p>Master Punctuation: Period at end of sentence after initials after numerals Question mark Apostrophe in contractions in possessive nouns Comma in dates in direct quotations between city and state after greeting in friendly letter after closing in friendly letter Exclamation mark Quotation marks exact words of speaker direct quotations</p> <p>Practice Subject and Predicate: Record S/P on wall charts Write S/P sentences Diagram S/P sentences Identify complete subject / complete predicate Identify simple subject / simple predicate Discover simple subject and predicate in literature</p> <p>Practice Etymology (Parts of Speech) Write and diagram sentences using eight parts of speech: Nouns, classified as: Common / Proper Singular / Plural Nouns, used as Subjects</p>	<p>Read for fluency and comprehension: Literature Other "across the curriculum" assignments</p> <p>Find and Read: Synonyms and Antonyms Homonyms, Homophones, and Homographs Plurals Compound words Common suffixes: s, es, ed, ing, y, er, est</p> <p>Practice Comprehension: Understand that the purpose of reading is to discover the author's message and intent while also: Distinguishing fact from fantasy Recalling sequences in a story Anticipating outcomes Interpreting inferences and implied meanings Determining main idea Recognizing important ideas and details</p> <p>Introduce comprehension exercises to: Understand relevant facts Determine time, place, cause, and effect Summarize or retell fact or fiction, orally and in writing Recognize that reading takes the reader into art, culture, and intellect not accessible from spoken language only Follow written instructions</p>

Sensory Cognition (ability to use four sensory pathways to the mind)	Listening, Letter Formation Phonetics, Spelling	Speaking, Speech Vocabulary	Grammar/Syntax Composition	Reading/Comprehension Literature Resources
<p><u>Practice Coordination - Directionality to:</u></p> <ul style="list-style-type: none"> Develop hand-eye coordination Refine motor coordination for letter formation, spacing, margins, etc. Acquire ability to estimate distances Acquire sense of spatial relationships Maintain natural, comfortable position while speaking <p>VISUAL ATTENTION</p> <p>DISCRIMINATION / COORDINATION</p> <p>Master Visual Attention, Discrimination and Coordination to:</p> <ul style="list-style-type: none"> Recognize differences between foreground and background Notice likenesses and differences Relate parts to whole <p>VISUAL / VISUAL MOTOR SEQUENCING / MEMORY ASSOCIATION</p> <ul style="list-style-type: none"> Recognize and recall proper sequencing Recognize and recall directions Make visual comparisons Use left to right, print flow Recall spatial relationships Develop accurate linear eye movements Recognize differences in patterns Recognize different colors <p>VERBAL SKILLS:</p> <ul style="list-style-type: none"> Master speech abilities to: Pronounce words with proper: Voice inflection Tone Rhythm Enunciation Articulation 	<p>a, e, o, u say long sound at end of "open" syllable</p> <p>i and o may say long sound before two consonants</p> <p>i and y may say short "i" but usually say long e or i</p> <p>y, not i, is used at the end of a word</p> <p>a-y is used to say long a to end a word</p> <p>o-r may say er after w (works)</p> <p>Four Silent Final e rules:</p> <p>To let vowel say its name</p> <p>English words do not end with v or u</p> <p>Let c and g say soft sounds</p> <p>Every syllable needs a vowel (a ble)</p> <p>All, till, & full written with one l if added to another syllable</p> <p><u>Master Plural Rules:</u></p> <p>Add s to form most plurals</p> <p>Add es to nouns ending with the sounds of s, z, ch, sh, or j</p> <p>Nouns ending in a vowel and y add s (monkeys)</p> <p>Nouns ending in a consonant and y change the y to i and add es (puppy / puppies)</p> <p><u>Master Syllabication Rules:</u></p> <p>A one-syllable word is never divided</p> <p>Compound words are divided between the single words (in to)</p> <p>Divide between two consonants unless they make one sound (per haps, ma chine)</p> <p>Divide between the root and the affix (re run, soft ness)</p> <p>Divide after a closed syllable if the first vowel is short (lem on)</p> <p>Divide after the open syllable if the first vowel or owl sound is long (pa per)</p> <p><u>Master Capital Letter Rules:</u></p> <p>Capitalize names or titles of people, places, books, days, and months</p>	<p><u>Introduce</u></p> <ul style="list-style-type: none"> Prefixes bi, pre, uni, re, mis, dis Learn meaning of all words in the: <i>Language of instruction</i> Basic words used in questions Terms used in word classifications Oral instructions from teacher dictation and Socratic questioning Grammar and syntax instructions Terms used in counting and measuring 	<p>Direct Objects</p> <p>Predicate Noun</p> <p>Object of Preposition</p> <p>Pronouns, used as:</p> <ul style="list-style-type: none"> Subject Pronouns Object Pronouns Possessive Pronouns <p>Classified as:</p> <ul style="list-style-type: none"> Personal Pronouns Singular / Plural <p>Verbs, classified as:</p> <ul style="list-style-type: none"> Regular / Irregular Auxiliary (helping) Verbs <p>Verbs, used as:</p> <ul style="list-style-type: none"> Intransitive Verbs Transitive Verbs <p>Present / Past / Future Tense Linking Verbs</p> <p>Singular (She writes)</p> <p>Plural (They write)</p> <p>Articles: a, an, the</p> <p>Adjectives used to answer:</p> <ul style="list-style-type: none"> What kind? Which one? Whose? How many? <p>Adverbs used to answer:</p> <ul style="list-style-type: none"> When? Where? Why? How? How much? <p>Conjunctions: and, but, or, nor, because</p> <p>Prepositions, used to show relationships</p> <p>Prepositional Phrase</p> <p>Interjections</p> <p>COMPOSITION</p> <p><u>Introduce the Writing Process:</u></p> <p>Pre-write</p>	<p>COMPREHENSION ASSESSMENT</p> <p>Test comprehension with normed tests 2-3 times a week</p> <p>RESOURCES:</p> <ul style="list-style-type: none"> Use and read Spelling and Usage Dictionary (4,832 words) Help prepare, use, and read wall charts for definitions, rules, and illustrations Use classroom library Use encyclopedias <p>LITERATURE:</p> <ul style="list-style-type: none"> Selections left to discretion of district or state We recommend classic literature such as Core Knowledge Foundation recommendations; anything with an expanding vocabulary

Sensory Cognition (ability to use four sensory pathways to the mind)	Listening, Letter Formation Phonetics, Spelling	Speaking, Speech Vocabulary	Grammar/Syntax Composition	Reading/Comprehension Literature Resources
<p>Accent</p> <p>Pronounce and use 4,000 - 24,000 words in sentences [beginning comprehensible vocabulary]</p> <p>Pronounce, in isolation, 42 elementary English sounds</p> <p>Use accurate pronunciation in oral reading</p> <p>Apply phonemes in words for oral encoding</p> <p>Use precise articulation of 42 elementary sounds</p> <p>Use various voice tones and rhythm</p> <p>Participate in choral readings</p> <p>Follow multiple oral instructions</p> <p>Use accented syllables</p>	<p><u>Practice Orthography Rules:</u></p> <p>Final y is changed to i if suffix does not begin with i</p> <p>Double final consonant before vowel suffix in a closed one-syllable word</p> <p>Double final consonant before vowel suffix in two-syllable word if accent is on last syllable except when suffix throws accent to first syllable</p> <p>Add past tense ending suffix e-d to words with various endings</p> <p>Silent e is dropped for most vowel suffixes</p> <p>Silent e is usually kept for consonant suffixes</p> <p>Use ei after c, if we say long a, and in some exceptions</p> <p>t-i, s-i, c-i used at beginning of a syllable after first one</p> <p>s-i says sh when previous syllable ends in s</p> <p>s-i can say zh with suffixes</p> <p><u>Practice Syllable Rules:</u></p> <p>Divide between two vowels when sounded separately (di et)</p> <p>Vowels sounded alone form their own syllable (dis a bey)</p> <p>When a word ends in a consonant and le, divide before that syllable if it is sounded separately (ca ble)</p> <p><u>Practice Apostrophe Rules:</u></p> <p>An apostrophe takes the place of missing letters in a contraction</p> <p>An apostrophe shows ownership in singular or plural nouns</p> <p>An apostrophe is not used in possessive pronouns</p> <p><u>Master Daily Spelling Tests</u></p> <p>Take 30-word test daily, adding six new words and dropping six oldest</p> <p>Take normed spelling pattern diagnostic test once a month</p>		<p>Gather Information</p> <p>Find ideas about subject</p> <p>Sort ideas into groups</p> <p>Be observant of surroundings</p> <p>Draft - Put ideas on paper</p> <p>Revise</p> <p>Rearrange Ideas</p> <p>Revise and refine ideas</p> <p>Conference with teacher</p> <p>Conference with peers</p> <p>Offer constructive suggestions in writing and revising</p> <p>Proofread</p> <p>Use proofreader marks</p> <p>Conference with teacher</p> <p>Conference with peers</p> <p>Correct spelling errors</p> <p>Correct errors in syntax</p> <p>Correct errors in capitalization</p> <p>Final copy</p> <p>Illustrate</p> <p>Neat final copy with correct letter formations, margins, and spacing</p> <p>Writing projects</p> <p>Sentences</p> <p>Topic Sentences</p> <p>Paragraphs</p> <p>Book Reports</p> <p>Friendly Letters</p> <p>Address Envelopes</p> <p>Autobiographies</p> <p>Use in composition:</p> <p>Homonyms</p> <p>Homographs</p> <p>Homophones</p> <p>Introduce Composition of Poetry</p> <p>Basic knowledge of definitions and structure</p> <p>Rhyming Verse</p> <p>Begin writing poetry</p>	

Standards Edition, Primary Mathematics © 2008

correlated to the Common Core State Standards for Mathematics

*Key: TB = Textbook, WB = Workbook

Standards	Descriptor	Page Citations
Operations and Algebraic Thinking		1.OA
Represent and solve problems involving addition and subtraction.		
1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	TB-A: 27-38, 42-50, 70-74 WB-A: 25-32, 34-36, 43-51, 64-66, 101-113, 120, 127, 129-131, 183, 185-186 TB-B: 7-15 WB-B: 13-18, 71, 197-199
2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	TB-B: 44-45 WB-B: 63-64, 66
Understand and apply properties of operations and the relationship between addition and subtraction.		
3	Apply properties of operations as strategies to add and subtract. <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</i>	TB-A: 32, 50, 70-74 WB-A: 32-33, 40, 47-48, 53-54, 102-106, 108-113, 116-122 TB-B: 44-45 WB-B: 63-65
4	Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</i>	TB-A: 24-25, 38, 66 WB-A: 20-24, 107, 110
Add and subtract within 20.		
5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	TB-A: 35-37, 51-53, 75 WB-A: 36-39, 57-58, 114-115 TB-B: 46-47

Standards	Descriptor	Page Citations
6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).	TB-A: 35–37, 40, 50–52, 55, 70–78 WB-A: 36–39, 53–55, 57–58, 81, 101–115, 120
Work with addition and subtraction equations.		
7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <i>For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</i>	TB-A: 27 WB-A: 86, 119
8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$.	TB-A: 38, 66 WB-A: 107, 110
Number and Operations in Base Ten		1.NBT
Extend the counting sequence.		
1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	TB-B: 22, 25, 28, 85–87, 91–93 WB-B: 30, 37–38, 68, 134–135, 142, 147–149 (Numbers to 100 only)
2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:	
a	10 can be thought of as a bundle of ten ones — called a “ten.”	TB-A: 25, 62–66 WB-A: 23–24, 89–92
b	The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	TB-A: 62–66, 70–72 WB-A: 89–92, 94–95, 189–190
c	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	TB-A: 63 TB-B: 22–23, 25, 35, 76–79, 85 WB-B: 130–132
3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	TB-B: 29, 89–90 WB-B: 39, 150–152

Standards	Descriptor	Page Citations
Use place value understanding and properties of operations to add and subtract.		
4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	TB-A: 70–73, 76 WB-A: 102–107 TB-B: 34–35, 38–41, 82, 85, 87–88, 92–99 WB-B: 42, 44–57, 139–140, 147, 149, 153–166
5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	TB-B: 34–35, 38, 85, 87–88 WB-B: 42–44, 47–48, 144–149, 217
6	Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	TB-B: 38 WB-B: 171–174
Measurement and Data		1.MD
Measure lengths indirectly and by iterating length units.		
1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.	TB-A: 91–94 WB-A: 151–153, 195
2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <i>Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i>	TB-A: 95–96 WB-A: 154–156, 196
Tell and write time.		
3	Tell and write time in hours and half-hours using analog and digital clocks.	TB-B: 68–72 WB-B: 115–122, 225
Represent and interpret data.		
4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	TB-B: 16–21 WB-B: 19–29

Standards	Descriptor	Page Citations
Geometry		1.G
Reason with shapes and their attributes.		
1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	TB-A: 83–90 WB-A: 132–135, 137, 141–148, 193
2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	TB-A: 89–90 WB-A: 149, 194 WB-B: 224
3	Partition circles and rectangles into two and four equal shares, describe the shares using the words <i>halves</i> , <i>fourths</i> , and <i>quarters</i> , and use the phrases <i>half of</i> , <i>fourth of</i> , and <i>quarter of</i> . Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	TB-B: 66–67 WB-B: 109–114, 223

Standards Edition, Primary Mathematics © 2008

correlated to the Common Core State Standards for Mathematics

*Key: TB = Textbook, WB = Workbook

Standards	Descriptor	Page Citations
Operations and Algebraic Thinking		2.OA
Represent and solve problems involving addition and subtraction.		
1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	TB-A: 24–31, 43–46, 55–56, 58, 89, 101–102 WB-A: 31–32, 36–37, 45, 81, 86, 174 TB-B: 8–12, 100, 137 WB-B: 114
Add and subtract within 20.		
2	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	TB-A: 24–27 WB-A: 31–33 TB-B: 8–9
Work with equal groups of objects to gain foundations for multiplication.		
3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	TB-A: 105–107 WB-A: 115–116 WB-B: 143 See Grade 3: TB-A: 97
4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	TB-A: 90, 92 WB-A: 96, 99
Number and Operations in Base Ten		2.NBT
Understand place value.		
1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:	
a	100 can be thought of as a bundle of ten tens — called a “hundred.”	TB-A: 13–15 WB-A: 15, 17, 24
b	The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	TB-A: 13, 15
2	Count within 1000; skip-count by 5s, 10s, and 100s.	TB-A: 9, 13–16 WB-A: 7–8, 12, 15, 17 TB-B: 30–31, 34 WB-B: 43, 49, 143

Standards	Descriptor	Page Citations
3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	TB-A: 8-19, 23 WB-A: 9-11, 15-23, 25, 28-29, 87
4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	TB-A: 20-21, 23 WB-A: 24-25, 29
Use place value understanding and properties of operations to add and subtract.		
5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	TB-A: 24-31 WB-A: 31-37 TB-B: 8-13 WB-B: 7-12, 18-19
6	Add up to four two-digit numbers using strategies based on place value and properties of operations.	TB-A: 24-26, 28-29, 31, 33 WB-A: 9, 14, 31, 34, 36-38, 47 TB-B: 8, 10-16 WB-B: 7-9, 12, 15-16, 23 (Adding up to 3 numbers, including 3-digit numbers)
7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	TB-A: 24-57 WB-A: 31-67 TB-B: 8-20 WB-B: 7-25
8	Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.	TB-A: 12, 22-23, 74-75, 126 WB-A: 12-14, 26-27, 30 TB-B: 14-19 WB-B: 15-25
9	Explain why addition and subtraction strategies work, using place value and the properties of operations (explanations may be supported by drawings or objects.)	TB-A: 24-37, 39-45, 47-54 WB-A: 32, 36, 38, 42 TB-B: 8-20 WB-B: 7

Standards	Descriptor	Page Citations
Measurement and Data		2.MD
Measure and estimate lengths in standard units.		
1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	TB-A: 61-62, 65-75 WB-A: 73-75, 78, 80
2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	TB-A: 59-60, 71, 73, 126 WB-A: 72, 186
3	Estimate lengths using units of inches, feet, centimeters, and meters.	TB-A: 63, 67 WB-A: 75-78
4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	TB-A: 64-65, 68, 72 WB-A: 74, 76, 78
Relate addition and subtraction to length.		
5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	TB-A: 64-65, 68, 74-75, 101, 125-126 WB-A: 88, 91, 174 WB-B: 90
6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	TB-B: 108-110 WB-A: 157, 159-160 See Grade 1: TB-A: 16-17, 51-53
Work with time and money.		
7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	TB-B: 76-79 WB-B: 115-121
8	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <i>Example: If you have 2 dimes and 3 pennies, how many cents do you have?</i>	TB-B: 45-48 WB-B: 67, 72-74
Represent and interpret data.		
9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	TB-A: 60, 63, 67, 69

Standards	Descriptor	Page Citations
10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	TB-B: 101–102 WB-B: 149 See Grade 1: TB-B: 16–21 WB-B: 19–29
Geometry		2.G
Reason with shapes and their attributes.		
1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces (Sizes are compared directly or visually, not compared by measuring.) Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	TB-B: 116–119, 125–126 WB-B: 168–173, 181–182
2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	See Grade 3: TB-B: 139–144 WB-B: 163–166
3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i> , <i>thirds</i> , <i>half of</i> , <i>a third of</i> , etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	TB-B: 62–64 WB-B: 92–93

Standards Edition, Primary Mathematics © 2008

correlated to the Common Core State Standards for Mathematics

*Key: TB = Textbook, WB = Workbook

Standards	Descriptor	Page Citations
Operations and Algebraic Thinking		3.OA
Represent and solve problems involving multiplication and division.		
1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as 5×7.</i>	TB-A: 69–71, 75, 111–112, 117–119, 124–125, 128 WB-A: 66–71, 111
2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.</i>	TB-A: 72–73, 76, 78 WB-A: 72–73
3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	TB-A: 69–71, 75–81 WB-A: 67–68, 79–81, 181 TB-B: 57, 62, 64, 110, 126 WB-B: 27, 45
4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \underline{\quad} \div 3$, $6 \times 6 = ?$.</i>	TB-A: 69–73, 76, 78–79, 112–113, 116, 118–120, 124, 126, 128–129 WB-A: 71–77, 95, 113–115, 122–124, 132–134, 141–142

Standards	Descriptor	Page Citations
Understand properties of multiplication and the relationship between multiplication and division.		
5	Apply properties of operations as strategies to multiply and divide. <i>Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</i>	TB-A: 70, 72–73, 84, 108–109, 111–113, 118–120, 124, 128–130, 133–134 WB-A: 67, 69, 73, 111, 150–151
6	Understand division as an unknown-factor problem. <i>For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</i>	TB-A: 72–73, 113 WB-A: 72–77
Multiply and divide within 100.		
7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	TB-A: 68–81, 108–113, 117–120, 124–125, 128–130 WB-A: 66–67, 73–77, 104, 111–114, 117, 122–124, 127, 132–133, 141–142
Solve problems involving the four operations, and identify and explain patterns in arithmetic.		
8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	TB-A: 62–64, 67, 79–81 WB-A: 59–61, 64–65, 82–85, 131, 140, 149 TB-B: 45, 63, 126, 137 WB-B: 45–46
9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i>	TB-A: 15–17, 111–112, 118–119, 124, 128–130 WB-A: 14–16, 68, 71, 104, 156
Number and Operations in Base Ten 3.NBT		
Use place value understanding and properties of operations to perform multi-digit arithmetic.		
1	Use place value understanding to round whole numbers to the nearest 10 or 100.	TB-A: 18–23 WB-A: 17–20

Standards	Descriptor	Page Citations
2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	TB-A: 27–40, 45–49, 62–63 WB-A: 26–38, 42–47, TB-B: 27 WB-B: 44
3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.	TB-A: 82–84, 92, 109 WB-A: 86, 88, 150
Number and Operations—Fractions		3.NF
Develop understanding of fractions as numbers.		
1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.	TB-B: 85–87 WB-B: 90–95
2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.	
a	Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.	See Grade 4: TB-A: 79 WB-A: 70
b	Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.	See Grade 4: TB-A: 79 WB-A: 70
3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	
a	Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	TB-B: 91–96 WB-B: 104–107
b	Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.	TB-B: 91–96 WB-B: 100–107
c	Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.</i>	TB-B: 85–86, 93 WB-B: 90–93, 101–102 See Grade 4: TB-A: 90–93 WB-A: 79, 82–83, 86

Standards	Descriptor	Page Citations
d	Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	TB-B: 88–89 WB-B: 96–97
Measurement and Data		3.MD
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.		
1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	TB-B: 112–115 WB-B: 123–126
2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.	TB-B: 30–31, 48–50 WB-B: 28–29, 49–50 See Grade 2: TB-B: 90–94 WB-B: 139–140
Represent and interpret data.		
3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i>	TB-A: 140–143 WB-A: 162–167 See Grade 2: TB-B: 101–113 WB-B: 148–161
4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.	See Grade 2: TB-B: 72–73
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.		
5	Recognize area as an attribute of plane figures and understand concepts of area measurement.	
a	A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.	TB-B: 139–143 WB-B: 159–166

Standards	Descriptor	Page Citations
b	A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.	TB-B: 139–146 WB-B: 159–169
6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	TB-B: 139–146 WB-B: 159–169
7	Relate area to the operations of multiplication and addition.	
a	Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.	See Grade 4: TB-A: 141–144 WB-A: 162–163
b	Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	See Grade 4: TB-A: 141–144 WB-A: 162–164
c	Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.	TB-A: 111–112, 118–119, 124, 128, 130
d	Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.	See Grade 4: TB-A: 151–155 WB-A: 172–174
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.		
8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	TB-B: 147–150 WB-B: 170–172

Standards	Descriptor	Page Citations
Geometry		3.G
Reason with shapes and their attributes.		
1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	TB-B: 129, 132–133 WB-B: 146–152
2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.</i>	TB-B: 86–87 WB-B: 90, 92–95

Standards Edition, Primary Mathematics © 2008

correlated to the Common Core State Standards for Mathematics

*Key: TB = Textbook, WB = Workbook

Standards	Descriptor	Page Citations
Operations and Algebraic Thinking		4.OA
Use the four operations with whole numbers to solve problems.		
1	Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	TB-A: 59, 64, 67 See Grade 3: TB-A: 77-79, 84, 91 WB-A: 84-85
2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	TB-A: 59-60, 64-67, 73 WB-A: 54, 66, 114, 160 TB-B: 32, 92 WB-B: 40
3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	TB-A: 51, 57-60, 64-67 WB-A: 49-50, 54-55, 66, 112-114, 116 WB-B: 40, 103, 117
Gain familiarity with factors and multiples.		
4	Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.	TB-A: 26-37 WB-A: 21-27

Standards	Descriptor	Page Citations
Generate and analyze patterns.		
5	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i>	TB-A: 17, 33 WB-A: 15 TB-B: 97-99 WB-B: 111-112
Number and Operations in Base Ten		4.NBT
Generalize place value understanding for multi-digit whole numbers.		
1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.</i>	TB-A: 19, 62-63, 68-70, 72 WB-A: 17-18 See Grade 3: TB-A: 82-84 WB-A: 86-88 See Grade 5: TB-A: 23-27 WB-A: 18-19
2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	TB-A: 8-15, 21 WB-A: 7-12, 15
3	Use place value understanding to round multi-digit whole numbers to any place.	TB-A: 22-24 WB-A: 19-20
Use place value understanding and properties of operations to perform multi-digit arithmetic.		
4	Fluently add and subtract multi-digit whole numbers using the standard algorithm.	TB-A: 51-58 WB-A: 40-50
5	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	TB-A: 59, 61, 65, 67-72 WB-A: 51, 53, 56-61 See Grade 3: TB-A: 82-91 WB-A: 86-97
6	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	TB-A: 60, 62-64, 66-67 WB-A: 52-53 See Grade 3: TB-A: 94-103 WB-A: 98-103

Standards	Descriptor	Page Citations
Number and Operations—Fractions		4.NF
Extend understanding of fraction equivalence and ordering.		
1	Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	TB-A: 77–80 WB-A: 67–70
2	Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	TB-A: 79–80 WB-A: 70, 87 See Grade 3: TB-B: 95–96 WB-B: 108
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.		
3	Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.	
a	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	TB-A: 81–87 WB-A: 71–76 See Grade 3: TB-B: 97–101 WB-B: 109–114
b	Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. <i>Examples:</i> $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.	TB-A: 88–92 WB-A: 77–85 See Grade 2: TB-B: 67 See Grade 3: TB-B: 85, 97
c	Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.	TB-A: 88–89, 92–93 WB-A: 77–78, 83–85
d	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.	TB-A: 81–82, 87 WB-A: 75–76 See Grade 3: TB-B: 97, 99, 101

Standards	Descriptor	Page Citations
4	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	
a	Understand a fraction a/b as a multiple of $1/b$. <i>For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</i>	See Grade 5: TB-A: 64–66 WB-A: 60–63
b	Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. <i>For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)</i>	TB-A: 98–100 WB-A: 91–97 See Grade 5: TB-A: 69–70 WB-A: 62–63
c	Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. <i>For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?</i>	TB-A: 101–105 WB-A: 98–109
Understand decimal notation for fractions, and compare decimal fractions.		
5	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. <i>For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.</i>	TB-B: 17–18 WB-B: 19–20
6	Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i>	TB-B: 8–10, 12, 14–19 WB-B: 7–9, 12, 19–20
7	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.	TB-B: 21–22 WB-B: 25–26

Standards	Descriptor	Page Citations
Measurement and Data		4.MD
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.		
1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two- column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i>	TB-B: 129 WB-B: 144-145 See Grade 2: TB-A: 61-69, 76-87 TB-B: 90-94 See Grade 3: TB-B: 8-10, 13-15, 20-22, 26, 30-32, 41-42, 49-54, 57-60, 62
2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	TB-A: 40, 56, 58, 65, 67, 80, 97, 102, 104-105, 109, 140, 159, 161 WB-A: 49-50, 55, 66, 75, 78, 98-99, 101-103, 105-109, 112-113, 115-116, 158-159, 161, 179, 183 TB-B: 10-11, 14, 28-30, 34-35, 45-49, 58, 73, 90, 92, 104, 124, 128, 130-136, 147-148, 151 WB-B: 11, 39-40, 80, 103-104, 117-118, 120, 142-143, 156-160
3	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. <i>For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.</i>	TB-A: 141-156 WB-A: 162-171
Represent and interpret data.		
4	Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. <i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i>	TB-B: 107-108, 111, 113 WB-B: 122-123, 126

Standards	Descriptor	Page Citations
Geometric measurement: understand concepts of angle and measure angles.		
5	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:	
a	An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a "one-degree angle," and can be used to measure angles.	TB-A: 110–111, 114
b	An angle that turns through n one-degree angles is said to have an angle measure of n degrees.	TB-A: 112–115 WB-A: 123–131
6	Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	TB-A: 112–115 WB-A: 121–131
7	Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.	TB-A: 114–115 WB-A: 128–131
Geometry		4.G
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.		
1	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	TB-A: 111–124 WB-A: 117–124
2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.	TB-A: 122–124, 126 WB-A: 133, 140–141, 143
3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	TB-B: 81–86 WB-B: 95–100

Standards Edition, Primary Mathematics © 2008

correlated to the Common Core State Standards for Mathematics

*Key: TB = Textbook, WB = Workbook

Standards	Descriptor	Page Citations
Operations and Algebraic Thinking		5.OA
Write and interpret numerical expressions.		
1	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	TB-A: 29-33 WB-A: 22-24
2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. <i>For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$ without having to calculate the indicated sum or product.</i>	TB-A: 29-32 WB-A: 14, 22-24, 103 See Grade 4: TB-A: 41 WB-A: 32
Analyze patterns and relationships.		
3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. <i>For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</i>	TB-B: 162 WB-B: 153 See Grade 4: TB-B: 97-99 WB-B: 111-112
Number and Operations in Base Ten		5.NBT
Understand the place value system.		
1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	TB-A: 8 TB-B: 9, 23-24 See Grade 4: TB-A: 8-12 WB-A: 7
2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	TB-A: 23-26 WB-A: 16-19 TB-B: 23-30 WB-B: 14, 16-17

Standards	Descriptor	Page Citations
3	Read, write, and compare decimals to thousandths.	
a	Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.	TB-B: 8, 10 WB-B: 5 See Grade 4: TB-B: 12-15, 26 WB-B: 15, 21, 29
b	Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	TB-B: 11-12 WB-B: 6 See Grade 4: TB-B: 21-22, 24-25 WB-B: 25-26, 31
4	Use place value understanding to round decimals to any place.	TB-B: 13-15 WB-B: 7 See Grade 4: TB-B: 28-30 WB-B: 34-36
Perform operations with multi-digit whole numbers and with decimals to hundredths.		
5	Fluently multiply multi-digit whole numbers using the standard algorithm.	TB-A: 23-28, 35-36, 42-43, 48-49 WB-A: 16-17, 27-28, 35-36, 76
6	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	TB-A: 44-48, 50 WB-A: 37-40
7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	TB-B: 16-41 WB-B: 8-29 See Grade 4: TB-B: 35-67 WB-B: 42-76
Number and Operations—Fractions		5.NF
Use equivalent fractions as a strategy to add and subtract fractions.		
1	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. <i>For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)</i>	TB-A: 58-63, 106 WB-A: 52-59, 77, 102

Standards	Descriptor	Page Citations
2	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <i>For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.</i>	TB-A: 60, 63, 79
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.		
3	Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. <i>For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</i>	TB-A: 54–57 WB-A: 50–51
4	Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.	
a	Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i>	TB-A: 67–75, 80–87 WB-A: 64–75, 81–86
b	Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	TB-A: 81, 83 WB-A: 80

Standards	Descriptor	Page Citations
5	Interpret multiplication as scaling (resizing), by:	
a	Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.	TB-A: 80–87 WB-A: 79–87
b	Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.	TB-A: 80–83 WB-A: 79–82
6	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	TB-A: 80–87 WB-A: 80, 83–86
7	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.	
a	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. <i>For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</i>	TB-A: 88–89 WB-A: 87
b	Interpret division of a whole number by a unit fraction, and compute such quotients. <i>For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</i>	TB-A: 91–92 WB-A: 91–92
c	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$-cup servings are in 2 cups of raisins?</i>	TB-A: 91–92, 98, 106 WB-A: 90

Standards	Descriptor	Page Citations
Measurement and Data		5.MD
Convert like measurement units within a given measurement system.		
1	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.	TB-A: 71–72 WB-A: 66–69 TB-B: 44–47 WB-B: 34–36
Represent and interpret data.		
2	Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. <i>For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</i>	TB-A: 64, 99 TB-B: 123 See Grade 3: TB-A: 145 See Grade 4: TB-B: 107–108, 111, 113 See Grade 6: TB-B: 89, 93
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.		
3	Recognize volume as an attribute of solid figures and understand concepts of volume measurement.	
a	A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.	TB-B: 48 See Grade 3: TB-B: 151–156 WB-B: 173–179 See Grade 4: TB-B: 137 WB-B: 150
b	A solid figure, which can be packed without gaps or overlaps using n unit cubes, is said to have a volume of n cubic units.	TB-B: 49–53 See Grade 3: TB-B: 155–156 WB-B: 179 See Grade 4: TB-B: 137 WB-B: 150
4	Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	TB-B: 48–49 See Grade 4: TB-B: 137–138, 142 WB-B: 150–151

Standards	Descriptor	Page Citations
5	Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.	
a	Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.	TB-B: 50–52 See Grade 4: TB-B: 140–143 WB-B: 151–152
b	Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.	TB-B: 51–52 WB-B: 37 See Grade 4: TB-B: 140–143, 145 WB-B: 150–152
c	Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.	TB-B: 49 See Grade 4: TB-B: 137–139, 145 WB-B: 150
Geometry		5.G
Graph points on the coordinate plane to solve real-world and mathematical problems.		
1	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).	TB-B: 156–163 WB-B: 151–154 See Grade 4: TB-B: 93–96 WB-B: 107–110
2	Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	TB-B: 128–130 WB-B: 122 See Grade 4: TB-B: 93–96 WB-B: 107–110

Standards	Descriptor	Page Citations
Classify two-dimensional figures into categories based on their properties.		
3	Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. <i>For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</i>	TB-B: 95–98 See Grade 3: TB-B: 127–134 WB-B: 146–152 See Grade 4: TB-A: 122–127 WB-A: 140–143
4	Classify two-dimensional figures in a hierarchy based on properties.	See Grade 3: TB-B: 132–134 WB-B: 146–152 See Grade 4: TB-A: 122–127 WB-A: 140–143

Standards Edition, Primary Mathematics © 2008

correlated to the Common Core State Standards for Mathematics

*Key: TB = Textbook, WB = Workbook

Standards	Descriptor	Page Citations
Ratios and Proportional Relationships		6.RP
Understand ratio concepts and use ratio reasoning to solve problems.		
1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."</i>	TB-A: 90-95 WB-A: 75-76 See Grade 5: TB-A: 135-138 WB-A: 129-138
2	Understand the concept of a unit rate a/b associated with a ratio $a:b$ with b not equal to 0, and use rate language in the context of a ratio relationship. <i>For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."</i>	TB-A: 90-95 WB-A: 75-76
3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	
a	Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	TB-A: 92-99 WB-A: 22, 75-78 TB-B: 185 See Grade 5: TB-A: 139-143, 159, 162-163
b	Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i>	TB-A: 124-143 WB-A: 94-105, 109-110, 112
c	Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.	TB-A: 73-77, 121 WB-A: 63-66, 89 See Grade 5: TB-B: 61-63, 69-73 WB-B: 51, 58-64
d	Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	TB-A: 96-99 WB-A: 77-78

Standards	Descriptor	Page Citations
The Number System		6.NS
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.		
1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$-cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?</i>	TB-A: 64–70 WB-A: 54–55, 57–58, 62 See Grade 5: TB-A: 93, 96–97 WB-A: 93, 95
Compute fluently with multi-digit numbers and find common factors and multiples.		
2	Fluently divide multi-digit numbers using the standard algorithm.	See Grade 5: TB-A: 25–26, 44–48 WB-A: 18, 37–40 TB-B: 18–21, 27–30, 33–34, 38–40 WB-B: 9–10, 16–18, 22–23, 27–29
3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	See Grade 5: TB-B: 16–41 WB-B: 8–29
4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i>	See Grade 5: TB-A: 17–18, 31–32 WB-A: 12–13, 24

Standards	Descriptor	Page Citations
Apply and extend previous understandings of numbers to the system of rational numbers.		
5	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	TB-A: 39–42 See Grade 4: TB-A: 42–47 WB-A: 34–37 See Grade 5: TB-B: 149–151 WB-B: 146–147
6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.	
a	Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite.	TB-A: 40–41 See Grade 5: TB-B: 149–151 WB-B: 146–147
b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.	TB-B: 185–186 See Grade 5: TB-B: 156–157 WB-B: 151
c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.	TB-A: 40–42 WB-A: 21, 37–40 See Grade 4: TB-A: 42–44, 47 WB-A: 34–35 See Grade 5: TB-B: 149–151, 156–157 WB-B: 151
7	Understand ordering and absolute value of rational numbers.	
a	Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i>	TB-A: 39–46 WB-A: 37–44 See Grade 4: TB-A: 42–45 WB-A: 36 See Grade 5: TB-B: 149–151 WB-B: 147

Standards	Descriptor	Page Citations
b	Write, interpret, and explain statements of order for rational numbers in real-world contexts. <i>For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C.</i>	TB-A: 39, 43 WB-A: 42 See Grade 4: TB-A: 42-43 WB-A: 34-35 See Grade 5: TB-B: 149-150 WB-B: 146
c	Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. <i>For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars.</i>	TB-A: 40-44 See Grade 5: TB-B: 151 WB-B: 147
d	Distinguish comparisons of absolute value from statements about order. <i>For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.</i>	See Grade 4: TB-A: 42-43 WB-A: 36-37 See Grade 5: TB-B: 149-151 WB-B: 146
8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	TB-A: 26-30 WB-A: 21-28 TB-B: 185-192 WB-B: 155-161 See Grade 5: TB-B: 156-157 WB-B: 151
Expressions and Equations		6.EE
Apply and extend previous understandings of arithmetic to algebraic expressions.		
1	Write and evaluate numerical expressions involving whole-number exponents.	TB-B: 179-180 WB-B: 151, 153-154 See Grade 5: TB-A: 21 WB-A: 15
2	Write, read, and evaluate expressions in which letters stand for numbers.	
a	Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation "Subtract y from 5" as $5 - y$.</i>	TB-A: 10-13, 19-25 WB-A: 5-10, 15-20 See Grade 5: TB-B: 140-144 WB-B: 139-140

Standards	Descriptor	Page Citations
b	Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. <i>For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.</i>	TB-A: 8–11 See Grade 5: TB-A: 17–21, 29–33 TB-B: 140–148
c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.</i>	TB-A: 19–25 WB-A: 15–20, 61 See Grade 5: TB-B: 140–148 WB-B: 139–143
3	Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.</i>	See Grade 5: TB-B: 140–148 WB-B: 144–145
4	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). <i>For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.</i>	TB-A: 8–11 See Grade 5: TB-B: 140–148
Reason about and solve one-variable equations and inequalities.		
5	Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	TB-A: 14–18 WB-A: 11–14
6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	TB-A: 10–13, 19–25 WB-A: 5–10, 15–20, 90

Standards	Descriptor	Page Citations
7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.	TB-A: 14–18 WB-A: 11–13
8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	
Represent and analyze quantitative relationships between dependent and independent variables.		
9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. <i>For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.</i>	TB-A: 26 WB-A: 22
Geometry		6.G
Solve real-world and mathematical problems involving area, surface area, and volume.		
1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	See Grade 5: TB-A: 108–126, 133–134, 149 WB-A: 106–120, 125–127, 141 TB-B: 43, 59–60, 104–105, 120, 137 WB-B: 32, 45, 114, 137

Standards	Descriptor	Page Citations
2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	TB-B: 29–33 WB-B: 24–32 See Grade 4: TB-B: 140–146 WB-B: 151–152 See Grade 5: TB-B: 50–53, 60, 121 WB-B: 37
3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	See Grade 4: TB-B: 96 WB-B: 109–110
4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	See Grade 4: TB-A: 132–136 WB-A: 148–155 See Grade 5: TB-A: 127–130 WB-A: 121–122
Statistics and Probability		6.SP
Develop understanding of statistical variability.		
1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. <i>For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.</i>	TB-B: 88–119 WB-B: 92–116
2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	TB-B: 88–119 WB-B: 92–116
3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	TB-B: 88–119 WB-B: 92–116
Summarize and describe distributions.		
4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	
a	Reporting the number of observations.	TB-B: 89, 90–91, 96–98, 103–104, 106–107, 110–116, 120–127 WB-B: 105–108, 111–114, 116

Standards	Descriptor	Page Citations
b	Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	TB-B: 88–119 WB-B: 92–116
c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	TB-B: 88–94, 97–99, 105, 107–110, 114–117 WB-B: 92–95, 100, 103–108, 114–116
d	Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	TB-B: 90–92, 109–113, 117

Scope and Sequence for Secondary Mathematics series

Singapore Math Inc.®
www.singaporemath.com

NEM: *New Elementary Mathematics*

DM: *Discovering Mathematics*, 1st edition

DMC: *Dimensions Mathematics*, Common Core Series

AM: *Discovering Mathematics Additional Mathematics*

CCS: Common Core Standards

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Numbers and the four operations									
	Review the idea of place value.							✓		
	Review the use of the four operations for calculations with positive whole numbers, fractions, and decimals.							✓		
	Review factors and multiple	✓		✓				✓		
	Recognize prime numbers.	✓		✓				✓		
	Express a composite number as the product of prime numbers using exponential notation.	✓		✓				✓		
	Find the greatest common factor and least common multiple using prime factorization.	✓		✓				✓		
	Find square roots and cube roots using prime factorization.	✓		✓				✓		
7.NS.1	Understand negative numbers.	✓		✓				✓		
7.NS.1	Use a number line to order integers.	✓		✓				✓		
7.NS.1a	Find the absolute value of an integer.	✓						✓		
7.NS.1a,b	Find the additive inverse of a number.	✓								
7.NS.1a,c	Understand the absolute value of the difference between two integers as the distance between them.	✓								
7.NS.1d	Add and subtract integers.	✓		✓				✓		
7.NS.2a,b,c	Multiply and divide integers.	✓		✓				✓		
7.NS.2c	Apply order of operations to expressions with integers.	✓		✓				✓		
7.NS.2b	Understand rational numbers.	✓		✓				✓		
7.NS.2	Review simplest form of a fraction.	✓		✓				✓		
7.NS.2b,c	Perform the four operations on rational numbers.	✓		✓				✓		
7.NS.2d	Convert rational numbers to terminating or recurring decimal numbers.	✓		✓				✓		
7.NS.3	Solve word problems involving rational numbers.	✓		✓				✓		
8.NS.1	Understand irrational numbers and the difference between rational and irrational numbers.		✓	✓				✓		
8.NS.2	Estimate the value of irrational square roots.		✓							
	Round numbers to a specified number of decimal places.	✓		✓				✓		
	Understand accuracy of measurement indicated by the number of significant figures or digits.		✓	✓				✓		
	Round numbers to a specified number of significant figures.		✓	✓				✓		
	Understand potential rounding and truncation errors resulting from calculator use.		✓	✓		✓				
	Rate, ratio, proportion, and speed									
	Relate ratios to fractions.	✓		✓				✓		

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Find the ratio of two or more quantities.	✓		✓				✓		
	Find equivalent ratios and simplify ratios.	✓		✓				✓		
7.EE.3	Solve problems involving ratios.	✓		✓				✓	✓	
7.EE.3	Solve problems involving an increase or decrease in ratio.	✓		✓				✓		
7.RP.1	Recognize and use common measures of rate.	✓		✓				✓		
7.RP.1	Convert rate units (e.g. km/h to m/s).	✓		✓				✓		
7.RP.1 7.EE.2,3	Solve problems involving rate.	✓		✓				✓	✓	
	Understand concepts of speed, uniform speed, and average speed.	✓		✓				✓		
7.EE.2,3	Solve problems involving speed and average speed.	✓		✓				✓		
7.RP.2a	Determine whether two quantities are in direct proportion or inverse proportion from a graph, a table, or an equation.	✓			✓				✓	
7.RP.2b	Identify the constant of proportionality.	✓			✓					
7.RP.2d	Represent proportional relationship on coordinate graphs.	✓			✓					
7.RP.2c	Represent the proportional relationship with an equation.	✓			✓					
7.RP.3	Solve problems involving direct and inverse proportions.	✓			✓			✓		
	Percentage									
	Express a percentage as a fraction or a decimal and vice versa.	✓		✓				✓		
	Express one quantity as a percentage of another.	✓		✓				✓		
	Compare quantities by percentages.	✓		✓				✓		
7.EE.2,3 7.RP.3	Solve problems involving reverse percentages (find the total given the percentage and quantity of a part).	✓		✓				✓	✓	
7.EE.2,3 7.RP.3	Solve problems involving increasing or decreasing a quantity by a given percentage.	✓		✓				✓	✓	
7.EE.2,3 7.RP.3	Solve problems involving discount and sales tax.	✓		✓				✓	✓	
7.EE.2,3 7.RP.3	Solve problems involving percentages in practical situations.	✓		✓			✓	✓	✓	
	Algebraic representation and formulas									
7.EE.4	Use letters to represent numbers or variable.	✓		✓				✓		
	Interpret algebraic notations.	✓		✓				✓		
7.EE.2,3,4 a	Express basic arithmetical processes algebraically.	✓		✓				✓		
7.EE.3	Evaluate algebraic expressions and formulas using substitution.	✓		✓				✓		
	Find the terms in a sequence.	✓		✓				✓		
	Find the formula for the general term of a sequence.	✓		✓				✓		
7.EE.4a	Solve problems involving sequences and number patterns.	✓		✓				✓		
	Algebraic manipulation									
7.EE.3	Add and subtract linear algebraic expressions.			✓				✓		
7.EE.3,4a	Use the distributive law to expand algebraic expressions of the form $\pm a(b \pm c)$.	✓	✓	✓	✓			✓	✓	
7.EE.3,4a	Simplify simple linear algebraic expressions.	✓	✓	✓	✓			✓	✓	
	Expand the product of two algebraic expressions e.g. $(a + b)(x + y)$.		✓		✓				✓	
	Recognize and apply the special products: $(a \pm b^2) = a \pm 2ab + b^2$; $(a + b)(a - b) = a^2 - b^2$.		✓		✓				✓	

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Factorize linear algebraic expressions in the form $ax + bx + kay + kby$, where a , b , and k are constants.	✓	✓	✓	✓			✓	✓	
	Factorize algebraic expressions of the form: $a^2x^2 - b^2y^2$; $a^2 \pm 2ab \pm b^2$; $ax^2 \pm bx \pm c$.		✓		✓				✓	
	Simplify algebraic fractions.		✓		✓				✓	
	Multiply and divide algebraic fractions.		✓		✓				✓	
	Simplify and add or subtract simple algebraic fractions with numerical denominators.		✓		✓				✓	
	Simplify and add or subtract algebraic fractions with linear or quadratic denominators.		✓		✓				✓	
	Change the subject of a formula, including those involving square roots.		✓		✓				✓	
	Solutions of linear equations and inequalities									
7.EE.4a	Solve linear equations with one unknown.	✓	✓	✓				✓	✓	
8.EE.7a	Simplify a linear equation to determine if it has one solution, no solution, or an infinite number of solutions.		✓							
7.EE.4a	Find the value of an unknown quantity in a formula.	✓		✓				✓		
7.EE.4a	Solve simple fractional equations that can be reduced to linear equations, e.g. $\frac{x}{3} + \frac{x-2}{4} = 3$ or $\frac{3}{x-2} = 6$.	✓		✓				✓		
7.EE.2,4a	Construct simple linear equations from given situations and solve these equations.	✓		✓				✓		
7.EE.4b	Solve simple inequalities such as $ax > b$, where $a > 0$.	✓		✓					✓	
7.EE.4b	Solve word problems involving simple inequalities.	✓		✓					✓	
7.EE.4b	Solve simple inequalities such as $ax > b$, where $a < 0$.	✓				✓			✓	
7.EE.4b	Solve linear inequalities in one unknown, e.g. $ax + b < c$.	✓				✓			✓	✓
7.EE.4b	Solve word problems involving inequalities.	✓				✓			✓	
8.EE.8a	Solve simultaneous linear equations in two unknowns using the graphical method.		✓		✓				✓	
8.EE.8a 8.EE.7b	Solve simultaneous linear equations in two unknowns using the substitution and elimination methods.		✓		✓				✓	✓
8.EE.8c	Formulate a pair of linear equations in two unknowns to solve problems.		✓		✓				✓	
	Solve problems involving simultaneous inequalities.					✓				
	Exponents (Indices)									
8.EE.1	State and apply the laws of exponents		✓			✓			✓	
8.EE.1	Use positive, zero, and negative integral exponents.		✓			✓			✓	
8.EE.1	Simplify expressions involving integral exponents.		✓			✓			✓	✓
8.EE.2	Solve simple equations involving integer exponents.		✓			✓			✓	✓
8.EE.2	Use fractional exponents.		✓			✓				
8.EE.2	Simplify expressions involving fractional exponents.		✓			✓				✓
8.EE.2	Evaluate algebraic expressions with exponents.		✓			✓				
	Solve equations involving fractional exponents.		✓			✓				✓
	Understand examples of very small or very large numbers and measurements, such as nanometer or gigabyte.		✓			✓				
8.EE.3	Represent numbers using the standard form $A \times 10^n$ where $1 \leq A < 10$ and n is an integer.		✓			✓			✓	
8.EE.4	Add and subtract numbers in standard form.		✓			✓			✓	

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
8.EE.4	Multiply and divide numbers in standard form.		✓			✓			✓	
	Simplify expressions involving algebraic exponents.									✓
	Solve equations involving algebraic exponents.									✓
	Solutions of simple quadratic equations									
	Solve quadratic equations in one unknown by factorization.		✓		✓	✓			✓	
	Formulate a quadratic equation in one unknown to solve problems.		✓		✓	✓			✓	
	Solve quadratic equations in one unknown by completing the square, using the quadratic formula, or drawing a graph.		✓			✓				
	Solve fractional equations that can be transformed to quadratic equations.		✓			✓			✓	
	Graphs of linear functions and relations.									
	Plot coordinate points on a graph.	✓		✓					✓	
7.RP.2a	Plot a graph of a set of ordered pairs satisfying a linear function.	✓		✓					✓	
7.RP.2b 8.SP.3	Find the slope (gradient) of a straight line on a graph as the ratio of vertical change to horizontal change.	✓		✓					✓	
8.F.1	Understand the definition of a function.		✓		✓					
8.EE.5 8.F.4 8.SP.3	Create a table of a set of ordered pairs based on a description between two proportional quantities, draw a linear graph, and derive a linear equation.		✓		✓					
8.F.2	Compare equations and graphs of functions.		✓		✓					
8.EE.6	Derive the equation $y = mx + b$ for a linear graph where m is the slope and b is the y-intercept.		✓		✓					
8.EE.6	Find the slope and y-intercept of a function in the form $y = mx + b$ where m and b are constants.		✓		✓					
8.EE.6 8.F.3	Draw a graph of a linear function given the slope and y-intercept or the equation $y = mx + b$.		✓		✓					
8.EE.6	Use similar triangles to explain why the slope is the same between any two points on a linear graph.		✓							
8.EE.5 8.F.5	Interpret and draw distance-time graphs (travel graphs).		✓				✓		✓	
8.EE.5 8.F.4	Solve problems involving rate of change (speed) in distance-time graphs.		✓				✓		✓	
8.G.8	Find the length of a line segment given the coordinates of the end points.		✓			✓				
8.F.3	Understand that the graph of a quadratic function is a curve.		✓		✓				✓	
	Interpret and find the equation of a straight line graph in the form $y = mx + c$ given two points on the line.		✓			✓				
	Interpret and draw speed-time graphs.						✓			
	Solve problems involving rate of change in speed-time graphs.						✓			
	Solve problems involving area under a speed-time graph.						✓			
	Understand and apply the condition for two lines to be parallel or perpendicular.									✓
	Find the equation of a line which is parallel or perpendicular to a given line.									✓
	Find the midpoint of a line segment.									✓
	Find the area of a rectilinear figure given the vertices.									✓

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Mensuration									
	Convert between units of area (cm^2 , mm^2 , m^2 , km^2) and volume (cm^3 , mm^3 , m^3).	✓		✓				✓		
7.G.6	Solve problems involving the perimeter and area of simple and composite plane figures consisting of parallelograms, triangles, and/or trapezoids.	✓		✓				✓		
7.G.1	Understand the scale factor of a scale drawing and maps.	✓			✓					
7.G.1	Draw a simple scale drawing.	✓			✓					
7.G.1	Calculate the actual distance between two points and the area of a region from a scale drawing.	✓			✓					
	Sketch prisms and use nets to visualize their surface areas.	✓		✓				✓		
7.G.3	Identify the 2-dimensional figure resulting from the cross section of a prism.	✓		✓				✓		
7.G.3	Describe the two-dimensional figures that result from slicing three dimensional figures.	✓								
7.G.4	Solve problems involving volumes and surface areas of simple and composite solids involving prisms.	✓		✓				✓		
7.G.4	Understand the formulas for circumference and area of a circle and the meaning of π .	✓								
8.G.9	Find the volume and surface areas of cylinders.		✓	✓						
8.G.9	Find volumes and surface areas of pyramids, cones, and spheres.		✓		✓				✓	
8.G.9	Solve problems involving surface areas and volumes of simple and composite solids involving prisms, cylinders, pyramids, cones, and spheres.		✓		✓				✓	
	Symmetries of solid figures									
	Identify line and rotation symmetries of plane figures.							✓		
	Identify plane symmetry and axes of rotational symmetry of solid figures.							✓		
	Give the number of planes and axes of symmetry and the order of rotational symmetry of given figures.							✓		
	Angles, triangles, and polygons									
	Describe points, lines, and line segments	✓		✓				✓		
	Describe points, lines, line segments, rays, and planes.	✓		✓						
	Describe angles	✓		✓				✓		
	Identify different types of angles (acute, right, obtuse, and reflex).	✓		✓				✓		
	Classify triangles based on their sides and angles.	✓		✓				✓		
	Identify different types of quadrilaterals and explore their properties.	✓		✓				✓		
7.G.2	Construct perpendicular bisectors, angle bisectors, triangles, and simple quadrilaterals using compasses, ruler, set squares and protractors, where appropriate.	✓		✓						
7.G.2	Understand when given measures are sufficient to determine a unique triangle, more than one triangle, or no triangle	✓								
7.G.2	Construct simple geometric figures using technology	✓		✓						

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
7.G.5	Understand the properties and find unknown angles in problems involving complementary angles, supplementary angles, adjacent angles on a line, and vertically opposite angles.	✓		✓				✓		
8.G.5	Understand angle properties and find unknown angles in problems involving angles formed by two parallel lines and a transversal (corresponding, alternate, and interior angles).		✓	✓				✓		
8.G.5	Understand the angle properties and find unknown angles of triangles and special quadrilaterals.		✓	✓				✓		
	Understand the angle properties of regular pentagon, hexagon, octagon, and decagon.		✓	✓				✓		
	Find the angles sum of interior and exterior angles of any convex polygon.		✓	✓				✓		
	Congruence and Similarity									
	Recognize congruent figures.		✓		✓			✓		
8.G.1	Match sides and angles of two congruent polygons.		✓		✓			✓		
8.G.1	Use properties of congruent figures to find unknown sides and angles.		✓		✓			✓		
8.G.1,2	Identify reflection, translation, and rotation of congruent figures.		✓		✓				✓	
8.G.3	Draw the reflection, translation, and rotation of a simple plane figure in the x-y plane.		✓						✓	
8.G.2	Draw the image of a congruent figure involving combined operations.		✓						✓	
8.G.4	Recognize similar figures.		✓		✓			✓		
8.G.4	Use properties of similar polygons (corresponding angles are equal and corresponding sides are proportional) to find unknown sides and angles.		✓		✓			✓		
8.G.4	Identify enlargement of a given plane figure by a scale factor.		✓		✓				✓	
8.G.4	Draw the enlargement of a simple plane figure in the x-y plane.		✓						✓	
8.G.4	Draw the image of a figure involving combined movements.		✓						✓	
	Use similar and congruent figures to make designs and tessellations.							✓		
	Pythagoras' Theorem									
8.G.6	Explain a proof of Pythagoras' Theorem.		✓		✓					
8.G.7	Apply Pythagoras' Theorem to solve problems.		✓		✓				✓	
	Determine whether a triangle is right angled given the lengths of its three sides.		✓		✓				✓	
8.G.6	Explain a proof of the converse of Pythagoras' Theorem.		✓							
8.NS.2	Use Pythagoras' Theorem to locate irrational numbers on a number line.		✓							
	Data Analysis									
7.SP.1	Understand different data collection methods (experimental measures, observation of outcomes, surveys, publications).	✓		✓						
7.SP.2, 3	Use dot plots to observe patterns of distribution in small samples of data.	✓			✓					
7.SP.4	Understand the mean and medium as a measure of center.	✓			✓				✓	

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
7.SP.2, 4	Use mean and median to compare sets of data.				✓				✓	
7.SP.2, 4	Understand variation in data and calculate the mean absolute deviation of sets of data.	✓								
	Calculate the mode of a set of data.	✓			✓				✓	
	Compare usefulness of mean, median, and mode.	✓			✓				✓	
	Construct stem and leaf diagrams.				✓					
8.SP.4	Organize data and display data in tables and two-way tables.		✓	✓	✓				✓	
	Construct and interpret bar graphs.		✓	✓					✓	
8.SP.4	Construct and interpret group frequency table and histograms with equal intervals to represent the group frequency table.		✓	✓					✓	
8.SP.4	Interpret relative frequencies for association between two variables.		✓		✓				✓	
8.SP.1,	Construct and interpret scatter plots and		✓							
8.SP.2,3	Informally fit a straight line when the plot suggests a linear association; interpret the slope and intercept.		✓							
8.SP.3	Construct and interpret line graphs for data.		✓	✓						
	Construct pie charts and pictograms			✓					✓	
	Calculate the mean, median, and mode of frequency distributions.					✓			✓	
	Construct histograms for grouped data.					✓				
	Understand and interpret cumulative frequency curves.					✓				
	Understand and find range, quartile, interquartile range and percentile					✓				
	Understand and interpret box-and-whisker plots.					✓				
	Understand standard deviation as a measure of variation.						✓			
	Calculate standard deviation for grouped and ungrouped data.						✓			
	Use mean and standard deviation to compare two sets of data.						✓			
	Probability									
7.SP.5	Understand probability as a measure of chance.	✓			✓					
	Define the terms sample space, outcome, and event.	✓			✓					
7.SP.6	Collect data from a chance event and predict the probability of a chance event from its relative frequency of occurrence.	✓			✓					
7.SP.7a	Find the theoretical probability of a single event, compare it to experimental probability.	✓			✓					
	List the sample space for a simple chance situation.	✓			✓					
7.SP.5, 7b	Understand the basic properties of probability.	✓			✓					
7.SP. 8a	Calculate the probability of a simple combined event using a possibility diagram or a tree diagram.	✓					✓			
7.SP.8b	Identify mutually exclusive events and independent events.	✓					✓			
7.SP.8b, 8c	Understand and apply the addition of probabilities for two mutually exclusive events.	✓					✓			
7.SP.8b, 8c	Understand and apply the multiplication of probabilities for independent events.	✓					✓			
7.SP.8c	Apply probability of mutually exclusive and independent events to solve problems.	✓					✓			

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Set language and set notation									
	Use set language and set notation to describe a set of objects, its elements, and its subsets.	✓			✓					
	Define the idea of a set and interpret the terms finite set, infinite sets, equal sets, equivalent sets, intersection or union of sets, empty set, disjoint set, subset, and proper subset.				✓					
	Define the complement, union, and intersection of two sets and illustrate those using Venn diagrams.				✓					
	Solve word problems with Venn diagrams.				✓					
	Solutions of quadratic equations and inequalities									
	Solve quadratic equations by factorization, completing the square, quadratic formula, and graphical method.		✓			✓				
	Solve fractional equations that can be transformed to quadratic equations.		✓			✓				
	Apply quadratic equations to solve everyday problems.		✓			✓				
	Identify the conditions for a quadratic equation to have two distinct real roots, two equal real roots, and no real roots.									✓
	Determine the condition for a quadratic equation to be always positive or always negative.									✓
	Find the maximum or minimum of a quadratic function by completing the square, find the x and y intercepts, and sketch the graph of the function.									✓
	Form a quadratic equation when the roots are given.									✓
	Identify conditions for a line to intersect a given curve, be a tangent to a given curve, or not intersect a given curve.									✓
	Solve quadratic inequalities and represent the solution sets graphically.									✓
	Understand the conditions for which a pair of linear equations has one solution, infinitely many solutions, or no solutions.									✓
	Solve simultaneous equations with at least one linear equation by substitution.									✓
	Determine the number of intersections between a straight line and a curve given the equations.									✓
	Graphs of non-linear functions and relations									
	Draw the graph of a quadratic function $y = ax^2 + bx + c$ where $a > 0$ and where $a < 0$ by finding and plotting ordered pairs.		✓		✓				✓	
	Find the maximum or minimum point, x-intercepts, y-intercept, and the line of symmetry of graphs of quadratic functions.		✓		✓				✓	
	Sketch the graphs of quadratic functions of the forms $y = \pm(x - h)^2 + k$ and $y = \pm(x - p)(x - q)$.					✓				
	Draw the graph of a function $y = ax^n$ for $-2 \leq n \leq 3$.					✓				
	Draw the graph of the sum of not more than 3 functions of the form $y = ax^n$ for $-2 \leq n \leq 3$.					✓				
	Draw the graph of an exponential function $y = ka^x$ where a is a positive integer.					✓				
	Draw the graph of an exponential function $y = ka^x$ where a is a positive integer.					✓				

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Estimate the gradient of a curve by drawing a tangent to the curve.					✓				
	Graph $ f(x) $ where $f(x)$ is linear or quadratic.									✓
	Solve simple equations involving modulus functions.									✓
	Recognize the graph of $y = ax^n$ when n is a simple rational number.									✓
	Recognize the graph of $y^2 = ax$.									✓
	Find the points of intersection between a straight line and a curve.									✓
	Find the equation of a circle given the center and radius.									✓
	Find the center and radius of a circle when its equation is given.									✓
	Congruent and similar triangles and plane figures									
	Understand and use tests for congruent triangles.					✓			✓	
	Determine whether two triangles are similar.					✓			✓	
	Solve problems involving congruent or similar triangles.					✓			✓	
	Determine whether two plane figures or solids are similar.					✓			✓	
	Solve problems involving the ratio of areas and of lengths of two similar plane figures.					✓			✓	
	Solve problems involving the ratio of volumes and the ratio of lengths of two similar solids.					✓			✓	
	Properties of circles									
	Understand symmetry properties of circles.					✓				
	Understand the properties of chords of a circle.					✓				
	Understand and apply angle properties of circles.					✓				
	State the properties of angles in opposite segments.					✓				
	Understand the properties of tangents to a circle.					✓				
	Solve problems involving properties of circles.					✓				
	Understand the relationship between arc length and angle subtended by an arc.					✓				
	Understand the relationship between sector area of a circle and angle subtended by an arc.					✓				
	Calculate arc length and sector area of a circle.					✓				
	Calculate area of a segment.					✓				
	Understand radian measure of an angle.					✓				
	Convert radians into degrees and vice versa.					✓				
	Express arc length and sector area formulae using radian measure.					✓				
	Matrices									
	Display information of a matrix in any order.						✓			
	Interpret the data in a given matrix.						✓			
	Calculate the product of a scalar quantity and a matrix.						✓			
	Solve problems involving the calculation of the sum, difference, or product of two matrices (where appropriate).						✓			
	Solve a pair of linear equations using the inverse matrix method.									✓
	Vectors in Two Dimensions									
	Represent a vector by a directed line segment.						✓			

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Represent a vector and its magnitude using various notations.						✓			
	Find the magnitude and direction of a vector.						✓			
	Use the sum and difference of two vectors to express given vectors in terms of two coplanar vectors.						✓			
	Multiply a vector by a scalar.						✓			
	Understand a position vector.						✓			
	Represent a vector in the coordinate plane using the column vector notation and find its magnitude.						✓			
	Solve geometric problems involving the use of vectors.						✓			
	Proofs in Plane Geometry									
	Understand the idea of proof in geometry.									✓
	Prove geometrical properties using the symmetry and angle properties of triangles, special quadrilaterals and circles.									✓
	Prove and use the midpoint theorem and intercept theorem for triangles.									✓
	Prove and use the tangent-chord theorem, intersecting chords theorem and tangent-secant theorem for circles.									✓
	Use the above properties and theorems for further proofs.									✓
	Logarithms and surds (radicals)									
	Understand the relationship between surds and fractional exponents									✓
	Understand the four operations on exponents and surds.									✓
	Rationalize the denominator of an expression involving surds.									✓
	Solve equations involving exponents and surds.									✓
	Understand the definition of logarithmic functions, including e^x and $\ln x$.									✓
	Solve simple equations involving logarithmic functions.									
	Understand the laws of logarithms, including change of base.									✓
	Solve simple equations involving logarithmic functions.									✓
	Sketch the graph of a^x , e^x , $\log_a x$, and $\ln x$.									✓
	Transform given relationships, including $y = kx^n$, $y = ka^x$, and logarithmic functions to linear form to determine the unknown constants from a straight line graph.									✓
	Polynomials, identities, and binomial expansion									
	Identify the terms and the degree of a polynomial.							✓		✓
	Add, subtract, multiply, and divide polynomials.							✓		✓
	Distinguish between equations and identities.							✓		✓
	Find unknown coefficients of terms and constant terms in identities.							✓		✓
	Use the remainder theorem and factor theorem.									✓
	Factorize cubic polynomials.									✓
	Solve cubic equations by factorization.									✓
	Resolve a proper algebraic fraction into partial fractions.									✓
	Use the binomial theorem to expand expressions in the form $(x + y)^n$ where n is a positive integer.									✓
	Use the binomial theorem to find a coefficient in the expansion of $(x + y)^n$.									✓
	Understand and use the notations for binomial expansion.									✓

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Find the general term in a binomial expansion.									✓
	Extend the technique of the binomial expansion to trinomial expansion.									✓
	Trigonometry									
	Use trigonometric ratios (sine, cosine, and tangent) of acute angles to calculate unknown sides and angles in right-angled triangles.					✓			✓	
	Extend sine and cosine and tangent to obtuse angles.					✓				
	Find the area of a triangle using the formula $\text{Area} = \frac{1}{2} bc \sin A$.					✓				
	Use the sine and cosine rules to solve problems involving the sides and angles of a triangle.					✓				
	Solve problems involving bearings and navigation.					✓				
	Solve problems involving angles of elevation and depression.					✓			✓	
	Apply trigonometry to solve simple 3-dimensional problems involving angles between straight lines.					✓			✓	
	Define the trigonometric functions sine, cosine, tangent, cosecant, secant, and cotangent for angles of any magnitude in degrees or radians.									✓
	Find the exact values of the trigonometric functions for special angles									✓
	Graph simple sine and cosine functions and determine their amplitude, periodicity, and symmetries.									✓
	Evaluate inverse sine, cosine, and tangent functions.									✓
	Graph simple sine and cosine functions and determine their amplitude, periodicity, and symmetries.									✓
	Solve simple trigonometric equations with the unknown in a given interval.									✓
	Find the principal values of $\sin^{-1}x$, $\cos^{-1}x$, and $\tan^{-1}x$.									✓
	Prove trigonometric identities.									✓
	Use trigonometric identities to solve equations.									✓
	Differentiation									
	Understand the idea of the derivative of a function and its notation.									✓
	Find the derivatives of x^n for any rational n , $\sin^n x$, $\cos^n x$, and $\tan^n x$.									✓
	Find the derivatives of constant multiples, sums, and differences.									✓
	Find the derivatives of products and quotients of functions.									✓
	Find the derivatives of composite functions.									✓
	Find the second derivative of functions.									✓
	Find the equation of the tangent to a curve at a point.									✓
	Define the normal of a curve at a point and find its equation.									✓
	Understand derivative as a rate of change.									✓
	Solve problems involving rates of changes.									✓
	Evaluate maximum and minimum points, and points of inflection on a graph using the first derivative and second derivative tests.									✓

CCS		DMC		DM				NEM		AM
		7	8	1	2	3	4	1	2	
	Apply differentiation to gradients, tangents and normals, connected rates of change, and maxima and minima problems.									✓
	Find the derivatives of functions involving e^x and $\ln x$.									✓
	Integration									
	Understand indefinite integration as the reverse of differentiation and standard notations.									✓
	Integrate of x^n and $(ax + b)^n$ for any rational n .									✓
	Apply rules of integration for constant multiples, sums, and differences of functions.									✓
	Integrate of x^n for any rational n , $\sin x$, $\cos^n x$, $\sec^2 x$, e^x , and $\ln x$.									✓
	Integrate $\sin(ax + b)$, $\cos(ax + b)$, and $e^{(ax+b)}$.									✓
	Apply indefinite integrals to find the equation of a curve with a given gradient.									✓
	Understand definite integral as area under a curve.									✓
	Evaluate definite integrals using integration formulae.									✓
	Find the area of a region bounded by a curve and lines parallel to the coordinate axes.									✓
	Find the areas of regions below the x -axis.									✓
	Understand the relationship between displacement, velocity, and acceleration.									✓
	Apply differentiation and integration to problems involving acceleration of a particle moving in a straight line with variable or constant acceleration.									✓



Indiana Academic Standards
English/Language Arts: Grades K-5

I. Introduction

The college and career ready Indiana Academic Standards for English/Language Arts are the result of a process designed to identify, evaluate, synthesize, and create the most high-quality, rigorous standards for Indiana students. The definitions that guided this work were created by the Indiana Education Roundtable, Department of Education, Center for Education & Career innovation, Commission for Higher Education and the Department of Workforce Development. The definition for college and career ready by this group and used throughout this process is as follows: “College-and – career ready means an individual has the knowledge, skills and abilities to succeed in post-secondary education and economically-viable career opportunities.” Additionally Public Law 31-2014 [SEA 91] defines college and career readiness educational standards as “the standards that a high school graduate must meet to obtain the requisite knowledge and skill to transition without remediation to post-secondary education or training, and ultimately into a sustainable career.”

Standards Process

The Indiana Academic Standards were created through a collaborative process with input from teams of K-12 educators and parents representing school corporations located throughout the state of Indiana; professors of higher education, representing a wide range of Indiana’s public and private colleges and universities; and representatives from Indiana businesses and industries. The purpose of the standards process was to design college and career ready standards that would ensure students who complete high school in Indiana are ready for college and careers.

History

Public Law 28 was passed by the Indiana General Assembly in 2013, which created Indiana Code 20-19-2-14.5. The law requires the Indiana State Board of Education to perform a comprehensive review of Indiana’s current standards (which were the 2011 Common Core State Standards¹) and to adopt college and career ready educational standards no later than July 1, 2014.

In the fall of 2013, the Indiana Department of Education established Technical Teams, which were comprised of K-12 educators in English/Language Arts and Mathematics. The Technical Teams were responsible for reviewing the existing Indiana Academic Standards (Common Core State Standards) and providing suggestions for edits and word changes to improve the clarity and progression of the standards. The Department also created Advisory Teams, which were made up of educators from k-12, parents, community members, and higher education institutions across Indiana. The Advisory Teams were responsible for reviewing the work of the Technical Teams and providing additional input.

Evaluation Process

In January of 2014, the Indiana Department of Education, in collaboration with the Indiana State Board of Education, established Evaluation Teams. The Evaluation Teams were responsible for additional layers beyond the work of the Technical and Advisory Teams. The Evaluation Teams were tasked with conducting a comprehensive analysis of several sets of standards, with the goal of identifying the standards that most clearly aligned with the content and skills that Hoosier students would need to know and be able to do in order to be college and career ready.

Membership for the Evaluation Teams was gleaned from individuals who had previously participated on either a Technical Team or an Advisory Team. The Evaluation Team members were selected for their subject matter expertise (in English/Language Arts or Mathematics) and their classroom teaching experience.

¹ © Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

The Evaluation Teams were made up of K-12 educators who represented a wide variety of Indiana school corporations with over 44 years of combined classroom teaching experience, and higher education subject matter experts in English/Language Arts and Mathematics, representing Indiana's public and private institutions of higher education.

The Evaluation Teams met for the first time in February of 2014. The English/Language Arts evaluation teams were given the E/LA Common Core State Standards, as well as Indiana's 2008 E/LA Academic Standards and the standards created by the National Council of Teachers of English. The Mathematics evaluation teams were given the Mathematics Common Core State Standards, as well as Indiana's 2008 Math Academic Standards, Indiana's 2008 Math Academic Standards, and the standards created by the National Council of Teachers of Mathematics.

The panel was instructed to independently evaluate each set of standards, identifying whether the standard was wholly aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; partially aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; or not aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready. The results of the evaluation were processed according to a forced consensus requirement—a majority requirement was calculated for each group of standards that was reviewed. Any standard that received a fully aligned rating by the majority of reviewers was marked as fully aligned; any standard that received a not aligned rating by the majority of reviewers was marked as not aligned; and any standard that received a partially aligned rating by the majority, or did not have a majority result, was marked as partially aligned.

Once the evaluations were complete, the results were compiled, and the Evaluation Teams were brought together to conduct a consensus process. The consensus process was blind (meaning that the Evaluation Team members did not know the origin of the standards that they were discussing). Through the consensus process, the Evaluation Teams were asked to select the standards that best and most thoroughly represented what students should know and be able to do in various areas of English/Language Arts and Mathematics in order to be college and career ready. The Evaluation Teams selected the standards that they found to be most appropriate; combined standards to create a more appropriate, rigorous, or clear standard; or, if they determined that gaps existed, wrote standards, or reviewed standards from other states (for example, the English/Language Arts Evaluation Teams reviewed the 2010 draft standards from Massachusetts).

Once the Evaluation Teams had selected the standards (from Common Core State Standards, Indiana Academic, or other states) or had written standards where they found gaps, the list of knowledge and skills identified as necessary for students to be college and career ready was posted for public comment.

Public Comment, Public Hearings, and National Expert Review

The draft college and career ready Indiana Academic Standards were posted for the public to review on February 19, 2014. The public was invited to provide comment through March 12. Over 2000 public comments were received. There were also three public hearings, which were held in southern, central, and northern Indiana, to receive public comment on the draft standards.

The comments from both the online public comment and the public hearings were compiled, reviewed and used to contribute to further iterations of the standards.

In addition, a variety of national experts were contacted to review the draft standards posted on February 19. The results of the reviews were discussed, and portions of the reviews were incorporated into further iterations of the standards.

Reconvening of Evaluation Teams

The Evaluation Teams were reconvened in March of 2014. The teams were tasked with incorporating public comment, and a national expert review to ensure that the draft standards were aligned across grade levels and showed appropriate progression from grade to grade. The Evaluation Teams were also tasked with editing and revising standards for clarity, and addressing any other public comments and national expert review around grade appropriateness, bias, embedded pedagogy, or other factors.

Once the Evaluation Teams completed their reviews, the results were sent to the College and Career Ready (CCR) Panels for final review and approval. The results were also shared with additional national experts, who provided reviews. The results of those reviews were analyzed and synthesized and shared with the CCR Panels.

College and Career Ready (CCR) Panels

The College and Career Ready Panels were created in order to ensure that the standards that Indiana developed were aligned with what colleges, universities, industries, and businesses deem necessary for students to be college and career ready. The CCR Panels were made up of subject matter experts from a variety of Indiana public and private colleges and universities, as well as individuals representing Indiana's businesses and industries.

The CCR Panels were brought together in late March of 2014 to review the draft Indiana Academic Standards that had been reviewed and vetted by the Evaluation Teams in mid-March of 2014. The CCR Panels were tasked with reviewing the standards from 12th grade through kindergarten to ensure that the standards were clear and understandable; aligned across grade levels, showing appropriate progression from grade to grade; and designed to prepare students for college and career readiness. The CCR panels met several times throughout the end of March 2014 and early April 2014 to accomplish this task. At their last meeting, the CCR panel members were asked to sign-off on the draft standards, indicating whether, in their professional opinion, the standards were poised to prepare Hoosier students to be college and career ready.



Indiana Academic Standards

The culmination of the efforts of the Technical Teams, Advisory Teams, Evaluation Teams, and CCR Panels is the college and career ready Indiana Academic Standards that are college and career ready. While many of the standards originated from various sources, including the Common Core State Standards; 2000, 2006, and 2009 Indiana Academic Standards; Massachusetts 2010 Draft English/Language Arts Standards; Virginia Standards of Learning; Nebraska English/Language Arts Standards; the National Council of Teachers of Mathematics; and the National Council of Teachers of English, a number of original standards were also written by members of the Evaluation Teams or CCR Panels.

The process was designed to identify the clearest, most rigorous, and best aligned standards in Mathematics and English/Language Arts to ensure that Hoosier students will graduate meeting the definitions for college and career as defined in Indiana's processes.

What are college and career ready Indiana Academic Standards?

The college and career ready Indiana Academic Standards are designed to help educators, parents, students, and community members understand what students need to know and be able to do at each grade level, and within each content strand, in order to exit high school college and career ready. The Indiana Academic Standards for English/Language Arts demonstrate what students should know and be able to do in the areas of Reading, Writing, Speaking and Listening, and Media Literacy. The Indiana Academic Standards for Mathematics demonstrate what students should know and be able to do in the areas of K-8 Mathematics; Algebra I, II, and Geometry; and higher-level high school Mathematics courses. The Indiana Academic Standards for Content Area Literacy (History/Social Studies and Science/Technical Subjects) indicate ways in which students should be able to incorporate literacy skills into various content areas at the 6-12 grade levels.

What are the college and career ready Indiana Academic Standards NOT?

1). The standards are not curriculum.

While the standards may be used as the basis for curriculum, **the college and career ready Indiana Academic Standards are not a curriculum.** Therefore, identifying the sequence of instruction at each grade—what will be taught and for how long—requires concerted effort and attention at the corporation and school levels. While the standards may have examples embedded, and resource materials may include guidelines and suggestions, the standards do not prescribe any particular curriculum. Curriculum is determined locally by a corporation or school and is a prescribed learning plan toward educational goals that includes curricular tools and instructional materials, including textbooks, that are selected by the corporation/school and adopted through the local school board.

2). The standards are not instructional practices.

While the standards demonstrate what Hoosier students should know and be able to do in order to be prepared for college and careers, the standards are not instructional practices. The educators and subject matter experts that worked on the standards have taken care to ensure that the standards are free from embedded pedagogy and instructional practices. **The standards do not define how teachers should teach.** The standards must be complemented by well-developed, aligned, and appropriate curricular materials, as well as robust and effective instructional best practices.

3). The standards do not necessarily address students who are far below or far above grade-level.

The standards are designed to show what the average Hoosier student should know and be able to do in order to be prepared for college and career. However, some students may be far below grade level or in need of special education, and other students may be far above grade level. The standards do not provide differentiation or intervention methods necessary to support and meet the needs of these students. It is up to the district, school, and educators to determine the best and most effective mechanisms of standards delivery for these students.

4). The standards do not cover all aspects of what is necessary for college and career readiness

While the standards cover what have been identified as essential skills for Hoosier students to be ready for college and careers, the standards are not—and cannot be—an exhaustive list of what students need in order to be ready for life after high school. Students, especially younger students, require a wide range of

physical, social, and emotional supports in order to be prepared for the rigors of each educational progression (elementary grades to middle grades; middle grades to high school; and high school to college or career).

II. Acknowledgements

The college and career ready Indiana Academic Standards could not have been developed without the time, dedication, and expertise of Indiana's K-12 teachers, parents higher education professors, and representatives of Indiana business and industry. Additionally, the members of the public, including parents, community members, policymakers, and educators who took time to provide public comments, whether through the online comment tool or in person at the various public hearings, have played a key role in contributing to the Indiana Academic Standards.

The Indiana Department of Education and Indiana State Board of Education would like to thank Ms. Sujie Shin of the Center on Standards and Assessment Implementation for providing expert facilitation throughout the process and acting in an advisory capacity. The Department and Board would also like to thank the individuals and organizations who provided national expert reviews of the draft standards.

We wish to specially acknowledge the members of the Technical Teams, Advisory Teams, Evaluation Teams, and College and Career Ready Panels who dedicated hundreds of hours to the review, evaluation, synthesis, rewriting, and creation of standards designed to be of the highest quality so that our Hoosier students who are ready for college and careers.

READING

Guiding Principle: *Students transition from “learning to read” to “reading to learn.” Students develop and apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They read a wide range of literature in several genres from a variety of time periods and cultures from around the world to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).ⁱ*

READING: Foundations

There are four key areas found in the Reading: Foundations section for grades K-5: Print Concepts, Phonological Awareness, Phonics, and Fluency. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Foundations.

In Reading: Foundations, students are expected to do the following:

LEARNING OUTCOME	RF.1: LEARNING OUTCOME FOR READING FOUNDATIONS Develop, build, and apply knowledge of foundational reading skills					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RF.1: Understand and apply knowledge of print concepts, phonics, phonemic awareness, vocabulary, and fluency and comprehension as a foundation for developing reading skills.	1.RF.1: Develop an understanding of the five components of reading (print concepts, phonemic awareness, phonics, vocabulary, and fluency and comprehension) to build foundational reading skills.	2.RF.1: Demonstrate an understanding of the five components of reading (print concepts, phonemic awareness, phonics, vocabulary, and fluency and comprehension) to build foundational reading skills.	3.RF.1: Apply foundational reading skills to build reading fluency and comprehension.	4.RF.1: Apply foundational reading skills to demonstrate reading fluency and comprehension.	5.RF.1: Apply foundational reading skills to demonstrate reading fluency and comprehension.
PRINT CONCEPTS	RF.2: PRINT CONCEPTS Demonstrate understanding of the organization and basic features of print, including that printed materials provide information and tell stories					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RF.2.1: Demonstrate understanding that print moves from left to right across the page and from top to bottom.	1.RF.2.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	2.RF.2.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.2.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.2.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.2.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>

	K.RF.2.2: Recognize that written words are made up of sequences of letters.	1.RF.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	2.RF.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.RF.2.3: Recognize that words are combined to form sentences.	1.RF.2.3: Recognize the components of a sentence (e.g., capitalization, first word, ending punctuation).	2.RF.2.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.2.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.2.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.2.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.RF.2.4: Identify and name all uppercase (capital) and lowercase letters of the alphabet.	1.RF.2.4: Learn and apply knowledge of alphabetical order.	2.RF.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
RF.3: PHONOLOGICAL AWARENESS Demonstrate understanding and apply knowledge of spoken words, syllables, and sounds						
PHONOLOGICAL AWARENESS	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RF.3.1 Identify and produce rhyming words.	1.RF.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	2.RF.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.RF.3.2: Orally pronounce, blend, and segment words into syllables.	1.RF.3.2: Blend sounds, including consonant blends, to produce single- and multi-syllable words.	2.RF.3.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.3.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.3.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.3.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.RF.3.3: Orally blend the onset (the initial sound) and the rime (the vowel and ending sound) in words.	1.RF.3.3: Add, delete, or substitute sounds to change single-syllable words.	2.RF.3.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.3.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.3.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.3.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>

	K.RF.3.4: Tell the order of sounds heard in words with two or three phonemes, and identify the beginning, middle (medial) and final sounds.	1.RF.3.4: Distinguish beginning, middle (medial), and final sounds in single-syllable words.	2.RF.3.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.3.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.3.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.3.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.RF.3.5: Add, delete, or substitute sounds to change words.	1.RF.3.5: Segment the individual sounds in one-syllable words.	2.RF.3.5: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.3.5: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.3.5: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.3.5: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
PHONICS	RF.4: PHONICS					
	Decode and read words by applying phonics and word analysis skills					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RF.4.1: Use letter-sound knowledge to decode the sound of each consonant (e.g., <i>dog</i> = /d/ /g/; <i>soap</i> = /s/ /p/).	1.RF.4.1: Use letter-sound knowledge of single consonants (hard and soft sounds), short and long vowels, consonant blends and digraphs, vowel teams (e.g., <i>ai</i> and digraphs, and r-controlled vowels to decode phonetically regular words (e.g., <i>cat</i> , <i>go</i> , <i>black</i> , <i>boat</i> , <i>her</i>), independent of context.	2.RF.4.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.RF.4.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.4.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.4.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.RF.4.2: Blend consonant-vowel-consonant (CVC) sounds to make words.	1.RF.4.2: Decode one-syllable words in the major syllable patterns (CVC, CVr, V, VV, VCe), independent of context.	2.RF.4.2: Use knowledge of the six major syllable patterns (CVC, CVr, V, VV, VCe, Cle) to decode two-syllable words, independent of context.	3.RF.4.2: Understand the six major syllable patterns (CVC, CVr, V, VV, VCe, Cle) to aid in decoding unknown words.	4.RF.4.2 Use the six major syllable patterns (CVC, CVr, V, VV, VCe, Cle) to read unknown words.	5.RF.4.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>

K.RF.4.3: Recognize the long and short sounds for the five major vowels.	1.RF.4.3: Apply knowledge of final –e and common vowel teams (vowel digraphs) for representing long vowel sounds.	2.RF.4.3: Apply knowledge of short and long vowels (including vowel teams) when reading regularly spelled one-syllable words.	3.RF.4.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RF.4.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.4.3: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
K.RF.4.4: Read common high-frequency words by sight (e.g., <i>a, my</i>).	1.RF.4.4: Recognize and read common and irregularly spelled high-frequency words by sight (e.g., <i>have, said</i>).	2.RF.4.4: Recognize and read common and irregularly spelled high-frequency words and abbreviations by sight (e.g., <i>through, tough; Jan., Fri.</i>).	3.RF.4.4 Read grade-appropriate words that have blends (e.g., <i>walk, play</i>) and common spelling patterns (e.g., <i>qu-</i> ; <i>doubling the consonant and adding –ing, such as cut/cutting; changing the ending of a word from –y to –ies to make a plural</i>).	4.RF.4.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.4.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
K.RF.4.5: Identify similarities and differences in words (e.g., <i>word endings, onset and rime</i> when spoken or written).	1.RF.4.5: Read words in common word families (e.g., <i>-at, -ate</i>).	2.RF.4.5: Know and use common word families when reading unfamiliar words (e.g., <i>-ale, -est, -ine, -ock</i>).	3.RF.4.5 Know and use more difficult word families when reading unfamiliar words (e.g., <i>-ight</i>).	4.RF.4.5: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RF.4.5: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
K.RF.4.6: <i>Standard begins at first grade.</i>	1.RF.4.6: Read grade-appropriate root words and affixes including plurals, verb tense, comparatives (e.g., <i>look, -ed, -ing, -s, -er, -est</i>), and simple compound words (e.g., <i>cupcake</i>) and contractions (e.g., <i>isn't</i>).	2.RF.4.6: Read multi-syllabic words composed of roots, prefixes, and suffixes; read contractions, possessives (e.g., <i>kitten's, sisters'</i>) and compound words.	3.RF.4.6: Read multi-syllabic words composed of roots and related prefixes and suffixes; read irregular contractions (e.g., <i>will not = won't</i> and possessives (e.g., <i>children's, Dennis's</i>).	4.RF.4.6: Use knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., <i>roots and affixes</i> to read accurately unfamiliar multi-syllabic words in context.	5.RF.4.6: Use knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., <i>roots and affixes</i> to read accurately unfamiliar multi-syllabic words in context.

FLUENCY	RF.5: FLUENCY					
	Demonstrate accuracy and fluency when reading					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RF.5: Read emergent-reader texts, maintaining an appropriate pace and using self-correcting strategies while reading.	1.RF.5: Orally read grade-level appropriate or higher texts smoothly and accurately, with expression that connotes comprehension at the independent level.	2.RF.5: Orally read grade-level appropriate or higher texts smoothly and accurately, with expression that connotes comprehension at the independent level.	3.RF.5: Orally read grade-level appropriate or higher texts smoothly and accurately, with expression that connotes comprehension at the independent level.	4.RF.5: Orally read grade-level appropriate or higher texts smoothly and accurately, with expression that connotes comprehension at the independent level.	5.RF.5: Orally read grade-level appropriate or higher texts smoothly and accurately, with expression that connotes comprehension at the independent level.

READING: *Literature*

There are three key areas found in the Reading: Literature section for grades K-5: Key Ideas and Textual Support, Structural Elements and Organization, and Connection of Ideas. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Literature.

In Reading: Literature, students are expected to do the following:

LEARNING OUTCOME	RL.1: LEARNING OUTCOME FOR READING LITERATURE					
	Read and comprehend a variety of literature independently and proficiently					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RL.1: Actively engage in group reading activities with purpose and understanding.	1.RL.1: With support, read and comprehend literature that is grade-level appropriate.	2.RL.1: Read and comprehend a variety of literature within a range of complexity appropriate for grades 2-3. By the end of grade 2, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed at the high end.	3.RL.1: Read and comprehend a variety of literature within a range of complexity appropriate for grades 2-3. By the end of grade 3, students interact with texts proficiently and independently.	4.RL.1: Read and comprehend a variety of literature within a range of complexity appropriate for grades 4-5. By the end of grade 4, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed at the high end.	5.RL.1: Read and comprehend a variety of literature within a range of complexity appropriate for grades 4-5. By the end of grade 5, students interact with texts proficiently and independently.

KEY IDEAS AND TEXTUAL SUPPORT	RL.2: STANDARD 2: KEY IDEAS AND TEXTUAL SUPPORT					
	Build comprehension and appreciation of literature by identifying, describing, and making inferences about literary elements and themes					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RL.2.1: With support, ask and answer questions about main topics and key details in a text heard or read.	1.RL.2.1 Ask and answer questions about main idea and key details in a text.	2.RL.2.1: Ask and answer questions (e.g., <i>who was the story about; why did an event happen; where did the story happen</i> to demonstrate understanding of main idea and key details in a text.	3.RL.2.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	4.RL.2.1: Refer to details and examples in a text when explaining what a text says explicitly and when drawing inferences from the text.	5.RL.2.1: Quote accurately from a text when explaining what a text says explicitly and when drawing inferences from the text.
	K.RL.2.2: With support, retell familiar stories, poems, and nursery rhymes, including key details.	1.RL.2.2 Retell stories, fables, and fairy tales in sequence, including key details, and demonstrate understanding of their central message or lesson.	2.RL.2.2: Recount the beginning, middle, and ending of stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	3.RL.2.2: Retell folktales, fables, and tall tales from diverse cultures; identify the themes in these works.	4.RL.2.2: Paraphrase or retell the main events in a story, myth, legend, or novel; identify the theme and provide evidence for the interpretation.	5.RL.2.2: Determine a theme of a story, play, or poem from details in the text, including how characters respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
	K.RL.2.3: Identify important elements of the text (e.g., <i>characters, settings, or events</i>).	1.RL.2.3: Using key details, identify and describe the elements of plot, character, and setting.	2.RL.2.3 Describe how characters in a story respond to major events and how characters affect the plot.	3.RL.2.3: Describe characters in a story (e.g., <i>their traits, motivations, or feelings</i>) and explain how their actions contribute to the plot.	4.RL.2.3: Describe a character, setting, or event in a story or play, drawing on specific details in the text, and how that impacts the plot.	5.RL.2.3: Describe two or more characters, settings, or events in a story or play, drawing on specific details in the text, and how they impact the plot.
	K.RL.2.4: Make predictions about what will happen in a story.	1.RL.2.4: Make and confirm predictions about what will happen next in a story.	2.RL.2.4: Make predictions about the content of text using prior knowledge of text features, explaining whether they were confirmed or not confirmed and why.	3.RL.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.RL.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.RL.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>

STRUCTURAL ELEMENTS AND ORGANIZATION	RL.3: STRUCTURAL ELEMENTS AND ORGANIZATION					
	Build comprehension and appreciation of literature, using knowledge of literary structure and point of view					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RL.3.1 Recognize familiar narrative text genres (e.g., <i>fairy tales, nursery rhymes, storybooks</i>).	1.RL.3.1: Identify the basic characteristics of familiar narrative text genres (e.g., <i>fairy tales, nursery rhymes, storybooks</i>).	2.RL.3.1: Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.	3.RL.3.1: Use terms such as chapter, scene, and stanza to refer to the parts of stories, plays, and poems; describe how each successive part builds on earlier sections.	4.RL.3.1: Explain major differences between poems, plays, and prose, and refer to the structural elements of poems and drama.	5.RL.3.1: Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, play, or poem.
CONNECTION OF IDEAS	K.RL.3.2: With support, define the role of the author and illustrator of a story in telling the story.	1.RL.3.2: Identify who is telling the story at various points in a text.	2.RL.3.2: Acknowledge differences in the points of view of characters and identify dialogue as words spoken by characters, usually enclosed in quotation marks.	3.RL.3.2: Distinguish personal point of view from that of the narrator or those of the characters.	4.RL.3.2: Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	5.RL.3.2: Describe how a narrator's or speaker's point of view influences how events are portrayed.
	RL.4: CONNECTION OF IDEAS					
	Build comprehension and appreciation of literature by connecting literary elements and themes and analyzing how sensory tools impact meaning					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RL.4.1 With support, describe the relationship between illustrations and the story in which they appear.	1.RL.4.1: Use illustrations and details in a story to describe its characters, setting, or events.	2.RL.4.1: Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.	3.RL.4.1: Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., <i>create mood, emphasize aspects of a character or setting</i>).	4.RL.4.1: Describe how visual and multimedia presentations and representations can enhance the meaning of a text.	5.RL.4.1: Analyze how visual and multimedia presentations and representations can enhance the meaning of a text.
	K.RL.4.2: With support, compare and contrast the adventures and experiences of characters in familiar stories.	1.RL.4.2: Compare and contrast the adventures and experiences of characters in stories.	2.RL.4.2: Compare and contrast versions of the same stories from different authors, time periods, or cultures from around the world.	3.RL.4.2: Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., <i>in books from a series</i>).	4.RL.4.2: Compare and contrast the treatment of similar themes and topics and patterns of events in stories, myths, and traditional literature from different cultures.	5.RL.4.2: Compare and contrast stories in the same genre on their approaches to similar themes and topics.

READING: *Nonfiction*

There are three key areas found in the Reading: Nonfiction section for grades K-5: Key Ideas and Textual Support, Features and Structure, and Connection of Ideas. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Nonfiction.

In Reading: Nonfiction, students are expected to do the following:

LEARNING OUTCOME	RN.1: LEARNING OUTCOME FOR READING NONFICTION Read and comprehend a variety of nonfiction independently and proficiently					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RN.1: Actively engage in group reading activities with purpose and understanding.	1.RN.1: With support, read and comprehend nonfiction that is grade-level appropriate.	2.RN.1: Read and comprehend a variety of nonfiction within a range of complexity appropriate for grades 2-3. By the end of grade 2, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed at the high end.	3.RN.1: Read and comprehend a variety of nonfiction within a range of complexity appropriate for grades 2-3. By the end of grade 3, students interact with texts proficiently and independently.	4.RN.1: Read and comprehend a variety of nonfiction within a range of complexity appropriate for grades 4-5. By the end of grade 4, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed at the high end.	5.RN.1: Read and comprehend a variety of nonfiction within a range of complexity appropriate for grades 4-5. By the end of grade 5, students interact with texts proficiently and independently.
KEY IDEAS AND TEXTUAL SUPPORT	RN.2: KEY IDEAS AND TEXTUAL SUPPORT Extract and construct meaning from nonfiction texts using a range of comprehension skills					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RN.2.1: With support, ask and answer questions about important elements of a text (e.g., <i>events, topics, concepts</i>).	1.RN.2.1 Ask and answer questions about key details to clarify and confirm understanding of a text.	2.RN.2.1: Ask and answer questions about the main idea and supporting facts and details in a text to confirm understanding.	3.RN.2.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	4.RN.2.1: Refer to details and examples in a text when explaining what a text says explicitly and when drawing inferences from the text.	5.RN.2.1: Quote accurately from a text when explaining what a text says explicitly and when drawing inferences from the text.

	K.RN.2.2: With support, retell the main idea and key details of a text.	1.RN.2.2 Retell main ideas and key details of a text.	2.RN.2.2: Identify the main idea of a multiparagraph text and the topic of each paragraph.	3.RN.2.2: Determine the main idea of a text; recount the key details and explain how they support the main idea.	4.RN.2.2: Determine the main idea of a text and explain how it is supported by key details; summarize the text.	5.RN.2.2: Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
	K.RN.2.3: With support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	1.RN.2.3: Describe the connection between two individuals, events, ideas, or pieces of information in a text.	2.RN.2.3 Describe the connection between a series of historical events, scientific ideas or concepts, and steps in a process or procedure in a text.	3.RN.2.3: Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in processes or procedures in a text, using words such as first, next, finally, because, problem, solution, same, and different.	4.RN.2.3: Explain the relationships between events, procedures, ideas, or concepts in a historical, scientific, or technical text, based on specific information in the text.	5.RN.2.3: Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
FEATURES AND STRUCTURES	RN.3: FEATURES AND STRUCTURES					
	Build understanding of nonfiction text, using knowledge of text features, structures, and author's perspective					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RN.3.1 Identify text features of a nonfiction text (e.g., <i>title, author, illustrations</i> and describe the relationship between those features and the text in which they appear.	1.RN.3.1: Know and use various text features (e.g., <i>table of contents, glossary, illustrations</i>) to locate and describe key facts or information in a text.	2.RN.3.1: Use various text features (e.g., <i>table of contents, index, headings, captions</i> to locate key facts or information and explain how they contribute to and clarify a text.	3.RN.3.1: Apply knowledge of text features to locate information and gain meaning from a text (e.g., <i>maps, illustrations, charts, font/format</i>).	4.RN.3.1: Apply knowledge of text features to locate information and gain meaning from a text (e.g., <i>charts, tables, graphs, headings, subheadings, font/format</i>).	5.RN.3.1: Apply knowledge of text features in multiple print and digital sources to locate information, gain meaning from a text, or solve a problem.
	K.RN.3.2: Recognize that a nonfiction text can be structured to describe a topic.	1.RN.3.2: Identify how a nonfiction text can be structured to indicate order (e.g., <i>sequential</i>) or to explain a simple cause and effect relationship.	2.RN.3.2: Identify how a nonfiction text can be structured to compare and contrast, to describe a procedure, and to explain a cause and effect relationship.	3.RN.3.2: Identify how a nonfiction text can be structured to indicate a problem and solution or to put events in chronological order.	4.RN.3.2: Describe the organizational structure (e.g., <i>chronological, problem-solution, comparison/contrast, procedural, cause/effect, sequential, description</i>) of events, ideas, concepts, or information in a text or part of a text.	5.RN.3.2: Compare and contrast the organizational structure of events, ideas, concepts, or information in two or more texts.

	K.RN.3.3: <i>Standard begins at second grade</i>	1.RN.3.3: <i>Standard begins at second grade</i>	2.RN.3.3: Identify what the author wants to answer, explain, or describe in the text.	3.RN.3.3: Distinguish one's own perspective from that of the author of the text.	4.RN.3.3: Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided in the accounts.	5.RN.3.3: Analyze multiple accounts of the same event or topic, noting important similarities and differences in the perspectives the accounts represent.
CONNECTION OF IDEAS	RN.4: CONNECTION OF IDEAS					
	Build understanding of nonfiction texts by verifying points and making connections between topics and ideas					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RN.4.1 With support, identify the reasons an author gives to support points in a text.	1.RN.4.1: Identify the reasons the author gives to support points in a text.	2.RN.4.1: Describe how an author uses facts to support specific points in a text.	3.RN.4.1: Distinguish between fact and opinion; explain how an author uses reasons and facts to support specific points in a text.	4.RN.4.1: Distinguish between fact and opinion; explain how an author uses reasons and evidence to support a statement or position (claim) in a text.	5.RN.4.1: Explain how an author uses reasons and evidence to support claims in a text, identifying which reasons and evidence support which claims.
	K.RN.4.2: With support, identify basic similarities in and differences between two texts on the same topic.	1.RN.4.2: Identify basic similarities in and differences between two texts on the same topic.	2.RN.4.2: Compare and contrast the most important points presented by two texts on the same topic.	3.RN.4.2: Compare and contrast the most important points and key details presented in two texts on the same topic.	4.RN.4.2: Combine information from two texts on the same topic in order to demonstrate knowledge about the subject.	5.RN.4.2: Combine information from several texts or digital sources on the same topic in order to demonstrate knowledge about the subject.
	K.RN.4.3: <i>Standard begins at sixth grade.</i>	1.RN.4.3: <i>Standard begins at sixth grade.</i>	2.RN.4.3: <i>Standard begins at sixth grade.</i>	3.RN.4.3: <i>Standard begins at sixth grade.</i>	4.RN.4.3: <i>Standard begins at sixth grade.</i>	5.RN.4.3: <i>Standard begins at sixth grade.</i>

READING: *Vocabulary*

There are two key areas found in the Reading: Vocabulary section for grades K-5: Vocabulary Building and Vocabulary in Literature and Nonfiction Texts. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Vocabulary.

In Reading: Vocabulary, students are expected to do the following:

LEARNING OUTCOME	RV.1: LEARNING OUTCOME FOR READING VOCABULARY Build and apply vocabulary using various strategies and sources					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RV.1: Use words, phrases, and strategies acquired through conversations, reading and being read to, and responding to literature and nonfiction texts to build and apply vocabulary.	1.RV.1: Use words, phrases, and strategies acquired through conversations, reading and being read to, and responding to literature and nonfiction texts to build and apply vocabulary.	2.RV.1: Use words, phrases, and strategies acquired through conversations, reading and being read to, and responding to literature and nonfiction texts to build and apply vocabulary.	3.RV.1: Build and use accurately conversational, general academic, and content-specific words and phrases.	4.RV.1: Build and use accurately general academic and content-specific words and phrases.	5.RV.1: Build and use accurately general academic and content-specific words and phrases.
VOCABULARY BUILDING	RV.2: VOCABULARY BUILDING Use strategies to determine and clarify words and understand their relationships					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RV.2.1: <i>Standard begins at first grade.</i>	1.RV.2.1: Demonstrate understanding that context clues (e.g., <i>words and sentence clues</i> and text features (e.g., <i>glossaries, illustrations</i> may be used to help understand unknown words.	2.RV.2.1: Use context clues (e.g., <i>words and sentence clues</i> and text features (e.g., <i>table of contents, headings</i> to determine the meanings of unknown words.	3.RV.2.1: Apply context clues (e.g., <i>word, phrase, an sentence clues</i> and text features (e.g., <i>maps, illustrations, charts</i> to determine the meanings of unknown words.	4.RV.2.1: Apply context clues (e.g., <i>word, phrase, sentence, and paragraph clues</i>) and text features (e.g., <i>charts, headings/subheadings, font/format</i> to determine the meanings of unknown words.	5.RV.2.1: Select and apply context clues (e.g., <i>word, phrase, sentence, and paragraph clues</i>) and text features to determine the meanings of unknown words.

	K.RV.2.2: Identify and sort pictures of objects into categories (e.g., <i>colors, shapes, opposites</i>).	1.RV.2.2: Define and sort words into categories (e.g., <i>antonyms, living things, synonyms</i>).	2.RV.2.2: Identify relationships among words, including common synonyms and antonyms, and simple multiple-meaning words (e.g., <i>change, duck</i>).	3.RV.2.2: Identify relationships among words, including synonyms, antonyms, homographs, homonyms, and multiple-meaning words (e.g., <i>puzzle, fire</i>).	4.RV.2.2: Identify relationships among words, including more complex homographs, homonyms, synonyms, antonyms, and multiple meanings.	5.RV.2.2: Identify relationships among words, including multiple meanings, synonyms and antonyms, homographs, metaphors, similes, and analogies.
	K.RV.2.3: <i>Standard begins at sixth grade.</i>	1.RV.2.3: <i>Standard begins at sixth grade.</i>	2.RV.2.3: <i>Standard begins at sixth grade.</i>	3.RV.2.3: <i>Standard begins at sixth grade.</i>	4.RV.2.3: <i>Standard begins at sixth grade.</i>	5.RV.2.3: <i>Standard begins at sixth grade.</i>
	K.RV.2.4: Recognize frequently occurring inflections (e.g., <i>look, looks</i>).	1.RV.2.4: Recognize and use frequently occurring affixes, and roots and their inflections, as clues to the meaning of an unknown word.	2.RV.2.4: Use a known root word as a clue to the meaning of an unknown word with the same root, and identify when a common affix is added to a known word.	3.RV.2.4: Use a known word as a clue to the meaning of an unknown word with the same root, and identify when an affix is added to a known root word.	4.RV.2.4: Apply knowledge of word structure elements (e.g., <i>suffixes, prefixes, common Greek and Latin affixes and roots</i>), known words, and word patterns to determine meaning.	5.RV.2.4: Apply knowledge of word structure elements, known words, and word patterns to determine meaning (e.g., <i>word origins, common Greek and Latin affixes and roots, parts of speech</i>).
	K.RV.2.5: <i>Standard begins at second grade.</i>	1.RV.2.5: <i>Standard begins at second grade.</i>	2.RV.2.5: Consult reference materials, both print and digital (e.g., <i>dictionary</i>), to determine or clarify the meanings of words and phrases.	3.RV.2.5: Consult reference materials, both print and digital (e.g., <i>dictionary</i>), to determine or clarify the meanings of words and phrases.	4.RV.2.5: Consult reference materials, both print and digital (e.g., <i>dictionary</i>), to find the pronunciation and clarify the precise meanings of words and phrases.	5.RV.2.5: Consult reference materials, both print and digital (e.g., <i>dictionary, thesaurus</i>), to find the pronunciation and clarify the precise meanings of words and phrases.

VOCABULARY IN LITERATURE AND NONFICTION TEXTS	RV.3: VOCABULARY IN LITERATURE AND NONFICTION TEXTS					
	Build appreciation and understanding of literature and nonfiction texts by determining or clarifying the meanings of words and their uses					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.RV.3.1 With support, ask and answer questions about unknown words in stories, poems, or songs.	1.RV.3.1: Identify words and phrases in stories, poems, or songs that suggest feelings or appeal to the senses (touch, hearing, sight, taste, smell).	2.RV.3.1: Recognize that authors use words (e.g., <i>regular beats, repeating lines, simile, alliteration, onomatopoeia, idioms</i>) to provide rhythm and meaning in a story, poem, or song.	3.RV.3.1: Determine how the author uses words and phrases to provide meaning to works of literature, distinguishing literal from nonliteral language, including figurative language (e.g., <i>similes</i>).	4.RV.3.1: Determine how words and phrases provide meaning to works of literature, including figurative language (e.g., <i>similes, metaphors, or hyperbole</i>).	5.RV.3.1: Determine how words and phrases provide meaning to works of literature, including imagery, symbolism, and figurative language (e.g., <i>similes, metaphors, hyperbole, or allusion</i>).
	K.RV.3.2: With support, ask and answer questions about unknown words in a nonfiction text.	1.RV.3.2: Ask and answer questions to help determine or clarify the meaning of words and phrases in a nonfiction text.	2.RV.3.2: Determine the meanings of words and phrases in a nonfiction text relevant to a second grade topic or subject area.	3.RV.3.2: Determine the meanings of general academic and content-specific words and phrases in a nonfiction text relevant to a third grade topic or subject area.	4.RV.3.2: Determine the meanings of general academic and content-specific words and phrases in a nonfiction text relevant to a fourth grade topic or subject area.	5.RV.3.2: Determine the meaning of general academic and content-specific words and phrases in a nonfiction text relevant to a fifth grade topic or text.
	K.RV.3.3: <i>Standard begins at third grade.</i>	1.RV.3.3: <i>Standard begins at third grade.</i>	2.RV.3.3: <i>Standard begins at third grade.</i>	3.RV.3.3: Recognize the meanings of idioms in context.	4.RV.3.3: Explain the meanings of proverbs, adages, and idioms in context.	5.RV.3.3: Analyze the meanings of proverbs, adages, and idioms in context.

WRITING

Guiding Principle: *Students develop and employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes. Students experiment with different modes of writing to develop their craft and hone their skills as writers. Students conduct simple research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize information and data from a variety of sources to communicate their discoveries in ways that suit their purpose and audience.*ⁱⁱ

WRITING:

There are five key areas found in the Writing section for grades K-5: Handwriting, Writing Genres, the Writing Process, the Research Process, and Conventions of Standard English. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Writing.

Note: The teaching of cursive writing that is included in this section is to be taught at the discretion of local decision. The Indiana Department of Education recommends the teaching of cursive writing to students in grades 3 and 4, not only for the purpose of allowing students to use the form of writing most appropriate to them and the setting, but for the more important purpose of being able to read cursive writing. Students need to be able to read cursive writing as they utilize primary documents (e.g., *historical documents, letters, etc.*).

In Writing, students are expected to do the following:

LEARNING OUTCOME	W.1: LEARNING OUTCOME FOR WRITING					
	Write effectively for a variety of tasks, purposes, and audiences					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.W.1: Write for specific purposes and audiences.	1.W.1: Write routinely over brief time frames and for a variety of purposes and audiences.	2.W.1: Write routinely over brief time frames and for a variety of tasks, purposes, and audiences; apply reading standards to write in response to literature and nonfiction texts.	3.W.1: Write routinely over a variety of time frames and for a range of discipline-specific tasks, purposes, and audiences; apply reading standards to write in response to literature and nonfiction texts.	4.W.1: Write routinely over a variety of time frames and for a range of discipline-specific tasks, purposes, and audiences; apply reading standards to support reflection and response to literature and nonfiction texts.	5.W.1: Write routinely over a variety of time frames and for a range of discipline-specific tasks, purposes, and audiences; apply reading standards to support reflection and response to literature and nonfiction texts.

HANDWRITING	W.2: HANDWRITING					
	Demonstrate the ability to write legibly					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.W.2.1: Write most uppercase (capital) and lowercase letters of the alphabet, correctly shaping and spacing the letters of the words.	1.W.2.1.: Write all uppercase (capital) and lowercase letters legibly, and space letters, words, and sentences appropriately.	2.W.2.1: Form letters correctly and space words and sentences properly so that writing can be read easily by another person.	3.W.2.1: Write legibly in print or cursive, leaving space between letters in a word, words, in a sentence, and words and the edges of the paper.	4.W.2.1: Write legibly in print or cursive, forming letters and words that can be read by others.	5.W.2.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>
	K.W.2.2: Write by moving from left to right and top to bottom.	1.W.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	2.W.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	3.W.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	4.W.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	5.W.2.2: <i>Students are expected to build upon and continue applying concepts learned previously.</i>

W.3: WRITING GENRES						
Develop writing skills by writing for different purposes and to specific audiences or people						
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
PERSUASIVE	<p>K.W.3.1: Use words and pictures to provide logical reasons for suggesting that others follow a particular course of action.</p>	<p>1.W.3.1: Write logically connected sentences to make a proposal to a particular audience (e.g., a <i>parent</i>, <i>classmate</i>, etc.) and give reasons why the proposal should be considered.</p>	<p>2.W.3.1: Write a logically connected paragraph or paragraphs, that introduce an opinion, with a concluding statement or section and multiple reasons to explain why a certain course of action should be followed.</p>	<p>3.W.3.1 Write persuasive compositions in a variety of forms that –</p> <ul style="list-style-type: none"> • State the opinion in an introductory statement or section. • Support the opinion with reasons in an organized way. • Connect opinion and reasons using words and phrases. • Provide a concluding statement or section. 	<p>4.W.3.1: Write persuasive compositions in a variety of forms that –</p> <ul style="list-style-type: none"> • In an introductory statement, clearly state an opinion to a particular audience. • Support the opinion with facts and details from various sources, including texts. • Use an organizational structure to group related ideas that support the purpose. • Connect opinion and reasons using words and phrases. • Provide a concluding statement or section related to the position presented. 	<p>5.W.3.1: Write persuasive compositions in a variety of forms that –</p> <ul style="list-style-type: none"> • Clearly present a position in an introductory statement to an identified audience. • Support the position with qualitative and quantitative facts and details from various sources, including texts. • Use an organizational structure to group related ideas that support the purpose. • Use language appropriate for the identified audience. • Connect reasons to the position using words, phrases, and clauses. • Provide a concluding statement or section related to the position presented.

	<p>K.W.3.2: Use words and pictures to develop a main idea and provide some information about a topic.</p>	<p>1.W.3.2: Develop a topic sentence or main idea, provide some facts or details about the topic, and provide a concluding statement.</p>	<p>2.W.3.2: Write a paragraph or paragraphs on a topic that introduce a topic, provide facts and details about the topic, and provide concluding statement.</p>	<p>3.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> • State the topic, develop a main idea for the introductory paragraph, and group related information together. • Develop the topic with facts and details. • Connect ideas within categories of information using words and phrases. • Use text features (e.g., <i>pictures, graphics</i>) when useful to aid comprehension. • Provide a concluding statement or section. 	<p>4.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> • Provide an introductory paragraph with a clear main idea. • Provide supporting paragraphs with topic and summary sentences. • Provide facts, specific details, and examples from various sources and texts to support ideas and extend explanations. • Connect ideas using words and phrases. • Include text features (e.g., <i>formatting, pictures, graphics</i>) and multimedia when useful to aid comprehension. • Use language and vocabulary appropriate for audience and topic. • Provide a concluding statement or section. 	<p>5.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> • Introduce a topic; organize sentences and paragraphs logically, using an organizational form that suits the topic. • Employ sufficient examples, facts, quotations, or other information from various sources and texts to give clear support for topics. • Connect ideas within and across categories using transition words (e.g., <i>therefore, in addition</i>). • Include text features (e.g., <i>formatting, pictures, graphics</i>) and multimedia when useful to aid comprehension. • Use appropriate language, vocabulary, and sentence variety to convey meaning; for effect; and to support a tone and formality appropriate to the topic and audience. • Provide concluding statement or section related to the information or explanation presented.
--	--	--	--	---	---	--

NARRATIVE

K.W.3.3: Use words and pictures to narrate a single event or simple story, arranging ideas in order.

1.W.3.3: Develop topics for stories or poems, using precise words to describe characters and actions and temporal words to signal event order, with ideas organized into a beginning, middle, and ending.

2.W.3.3: Develop topics for friendly letters, stories, poems, and other narrative purposes that –

- Include a beginning.
- Use temporal words to signal event order (e.g., *first of all*).
- Provide details to describe actions, thoughts, and feelings.
- Provide an ending.

3.W.3.3: Write narrative compositions in a variety of forms that –

- Establish an introduction (e.g., *situation, narrator, characters*).
- Include specific descriptive details and clear event sequences.
- Include dialogue.
- Connect ideas and events using introduction and transition words.
- Provide an ending.

4.W.3.3: Write narrative compositions in a variety of forms that –

- Establish an introduction with a context to allow the reader to imagine the world of the event or experience.
- Organize events that unfold naturally, using meaningful paragraphing and transitional words and phrases.
- Use dialogue and descriptive details to develop events and reveal characters' personalities, feelings, and responses to situations.
- Employ vocabulary with sufficient sensory (sight, sound, smell, touch, taste) details to give clear pictures of ideas and events.
- Provide an ending that follows the narrated experiences or events.

5.W.3.3: Write narrative compositions in a variety of forms that –

- Develop the exposition (e.g., *describe the setting, establish the situation, introduce the narrator and/or characters*).
- Develop an event sequence (e.g., *conflict, climax, resolution*) that unfolds naturally, connecting ideas and events using transitions.
- Use narrative techniques such as dialogue, description, and pacing to develop experiences and events or show the responses of characters to situations.
- Use precise and expressive vocabulary and figurative language for effect.
- Provide an ending that follows from the narrated experiences or events.

THE WRITING PROCESS	W.4: THE WRITING PROCESS					
	Produce coherent and legible documents by planning, drafting, revising, editing, and collaborating with others					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	<p>K.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • With support, revise writing by adding simple details; review (edit) writing for format and conventions (e.g., <i>correct spelling of simple words, capitalization of the first word of the sentence</i>). • Use available technology to produce and publish writing. 	<p>1.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • With support, develop, select and organize ideas relevant to topic, purpose, and genre; revise writing to add details (e.g., <i>sentence structure</i>); edit writing for format and conventions (e.g., <i>correct spelling of frequently used words, basic capitalization, end punctuation</i>); and provide feedback to other writers. • Use available technology to publish legible documents. 	<p>2.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • Generate a draft by developing, selecting and organizing ideas relevant to topic, purpose, and genre; revise writing, using appropriate reference materials, by adding details (e.g., <i>organization, sentence structure, word choice</i>); edit writing for format and conventions (e.g., <i>spelling, capitalization, usage, punctuation</i>); and provide feedback to other writers. • Use available technology to publish legible documents. 	<p>3.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • Generate a draft by developing, selecting and organizing ideas relevant to topic, purpose, and genre; revise to improve writing, using appropriate reference materials (e.g., <i>quality of ideas, organization, sentence fluency, word choice</i>); and edit writing for format and conventions (e.g., <i>spelling, capitalization, usage, punctuation</i>). • Use technology to interact and collaborate with others to publish legible documents. 	<p>4.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • Generate a draft by developing, selecting and organizing ideas relevant to topic, purpose, and genre; revise to improve writing, using appropriate reference materials (e.g., <i>quality of ideas, organization, sentence fluency, word choice</i>); edit writing for format and conventions (e.g., <i>spelling, capitalization, usage, punctuation</i>). • Use technology to interact and collaborate with others to publish legible documents. 	<p>5.W.4: Apply the writing process to –</p> <ul style="list-style-type: none"> • Generate a draft by developing, selecting and organizing ideas relevant to topic, purpose, and genre; revise to improve writing, using appropriate reference materials (e.g., <i>quality of ideas, organization, sentence fluency, word choice</i>); and edit writing for format and standard English conventions. • Use technology to interact and collaborate with others to publish legible documents.

FINDING, ASSESSING, SYNTHESIZING, AND REPORTING INFORMATION	STANDARD 5: THE RESEARCH PROCESS					
	W.5: Build knowledge about the research process and the topic under study by conducting short research					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	<p>K.W.5: With support, build understanding of a topic using various sources.</p> <ul style="list-style-type: none"> Identify relevant pictures, charts, grade-appropriate texts, personal experiences, or people as sources of information on a topic. 	<p>1.W.5: With support, conduct simple research on a topic.</p> <ul style="list-style-type: none"> Identify several sources of information and indicate the sources. Organize information, using graphic organizers or other aids. Make informal presentations on information gathered. 	<p>2.W.5: With support, conduct short research on a topic.</p> <ul style="list-style-type: none"> Find information on a topic of interest (e.g., <i>cardinals</i>). Identify various visual and text reference sources Organize, summarize, and present the information, choosing from a variety of formats 	<p>3.W.5: Conduct short research on a topic.</p> <ul style="list-style-type: none"> Identify a specific topic or question of interest (e.g., <i>where did Benjamin Harrison grow up?</i>). Locate information in reference texts, electronic resources, or through interviews. Recognize that some sources may be more reliable than others. Record relevant information in their own words. Present the information, choosing from a variety of formats. 	<p>4.W.5: Conduct short research on a topic.</p> <ul style="list-style-type: none"> Identify a specific question to address (e.g., <i>what is the history of the Indy 500?</i>). Use organizational features of print and digital sources to efficiently to locate further information. Determine the reliability of the sources. Summarize and organize information in their own words, giving credit to the source. Present the research information, choosing from a variety of formats. 	<p>5.W.5: Conduct short research assignments and tasks on a topic.</p> <ul style="list-style-type: none"> With support, formulate a research question (e.g., <i>what were John Wooden's greatest contributions to college basketball?</i>). Identify and acquire information through reliable primary and secondary sources. Summarize and paraphrase important ideas and supporting details, and include direct quotations where appropriate, citing the source of information. Avoid plagiarism and follow copyright guidelines for use of images, pictures, etc. Present the research information, choosing from a variety of sources.

W.6: CONVENTIONS OF STANDARD ENGLISH						
Demonstrate command of the conventions of standard English						
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
GRAMMAR AND USAGE	K.W.6.1: Demonstrate command of English grammar and usage, focusing on:	1.W.6.1: Demonstrate command of English grammar and usage, focusing on:	2.W.6.1: Demonstrate command of English grammar and usage, focusing on:	3.W.6.1: Demonstrate command of English grammar and usage, focusing on:	4.W.6.1: Demonstrate command of English grammar and usage, focusing on:	5.W.6.1: Demonstrate command of English grammar and usage, focusing on:
	K.W.6.1a: Nouns/Pronouns – Writing sentences that include singular and/or plural nouns (e.g., <i>dog/dogs, cat/cats</i>).	1.W.6.1a: Nouns/Pronouns – Writing sentences that include common and proper nouns and personal pronouns.	2.W.6.1a: Nouns/Pronouns – Writing sentences that include common, proper, possessive, and collective nouns, irregular plural nouns, and personal and possessive pronouns.	3.W.6.1a: Nouns/Pronouns – Writing sentences using abstract nouns (e.g., <i>hope, thought</i>).	4.W.6.1a: Nouns/Pronouns – Writing sentences that include relative pronouns (e.g., <i>who, which</i>) and reflexive pronouns (e.g., <i>myself, ourselves</i>) and explaining their functions in the sentence.	5.W.6.1a: Nouns/Pronouns – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
	K.W.6.1b: Verbs – Writing sentences that include verbs.	1.W.6.1b: Verbs – Writing sentences using verbs to convey a sense of past, present, and future.	2.W.6.1b: Verbs – • Writing sentences that use the past tense of frequently occurring irregular verbs. • Understanding the functions of different types of verbs (e.g., <i>action, linking</i>) in sentences.	3.W.6.1b: Verbs – Writing sentences that use regular and irregular verbs and simple verb tenses to convey various times, sequences, states, and conditions.	4.W.6.1b: Verbs – • Writing sentences that use the progressive verb tenses. • Recognizing and correcting inappropriate shifts in verb tense. • Using modal auxiliaries (e.g., <i>can, may, must</i>).	5.W.6.1b: Verbs – • Writing sentences that use the perfect (e.g., <i>I have walked, I had walked, I will have walked</i>) verb tenses. • Correctly using verbs that are often misused (e.g., <i>lie/lay, sit/set, rise/raise</i>).
	K.W.6.1c: Adjectives/Adverbs – <i>Standard begins at second grade.</i>	1.W.6.1c: Adjectives/Adverbs – <i>Standard begins at second grade.</i>	2.W.6.1c: Adjectives/Adverbs – Writing sentences that use adjectives and adverbs.	3.W.6.1c: Adjectives/Adverbs – Writing sentences that include comparative and superlative adjectives and adverbs, choosing between them depending on what is to be modified, and explaining their functions in the sentence.	4.W.6.1c: Adjectives/Adverbs – Writing sentences using relative adverbs (e.g., <i>where, when</i>) and explaining their functions in the sentence.	5.W.6.1c: Adjectives/Adverbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>

	K.W.6.1d: Prepositions – <i>Standard begins at fourth grade.</i>	1.W.6.1d: Prepositions – <i>Standard begins at fourth grade.</i>	2.W.6.1d: Prepositions – <i>Standard begins at fourth grade.</i>	3.W.6.1d: Prepositions – <i>Standard begins at fourth grade.</i>	4.W.6.1d: Prepositions – Writing sentences that include prepositions, explaining their functions in the sentence.	5.W.6.1d: Prepositions – Writing sentences that include prepositional phrases and explaining their functions in the sentence.
	K.W.6.1e: Usage – Recognizing that there are different kinds of sentences (e.g., <i>sentences that tell something, sentences that ask something, etc.</i>).	1.W.6.1e: Usage – Writing complete simple declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	2.W.6.1e: Usage – Writing correctly complete simple and compound declarative, interrogative, imperative, and exclamatory sentences.	3.W.6.1e: Usage – Writing correctly complete simple, compound, and complex declarative, interrogative, imperative, and exclamatory sentences, using coordinating and subordinating conjunctions (e.g., <i>and, for, but, or</i>).	4.W.6.1e: Usage – Writing correctly complete simple, compound, and complex declarative, interrogative, imperative, and exclamatory sentences, using coordinating and subordinating conjunctions (e.g., <i>yet, nor, so</i>).	5.W.6.1e: Usage – Writing correctly simple, compound, and complex declarative, interrogative, imperative, and exclamatory sentences, using correlative conjunctions (e.g., <i>either/or, neither/nor</i>).
CAPITALIZATION, PUNCTUATION, AND SPELLING	K.W.6.2: Demonstrate command of capitalization, punctuation, and spelling, focusing on:	1.W.6.2: Demonstrate command of capitalization, punctuation, and spelling, focusing on:	2.W.6.2: Demonstrate command of capitalization, punctuation, and spelling, focusing on:	3.W.6.2: Demonstrate command of capitalization, punctuation, and spelling, focusing on:	4.W.6.2: Demonstrate command of capitalization, punctuation, and spelling, focusing on:	5.W.6.2: Demonstrate command of capitalization, punctuation, and spelling, focusing on:
	K.W.6.2a: Capitalization – Capitalizing the first word in a sentence and the pronoun <i>I</i> .	1.W.6.2a: Capitalization – Capitalizing the first word of a sentence, dates, names of people, and the pronoun <i>I</i> .	2.W.6.2a: Capitalization – Capitalizing greetings, months and days of the week, titles and initials in names, and proper nouns, including holidays and geographic names.	3.W.6.2a: Capitalization – Capitalizing appropriate words in titles, historical periods, company names, product names, and special events.	4.W.6.2a: Capitalization – Capitalizing names of magazines, newspapers, works of art, musical compositions, organizations, and the first word in quotations, when appropriate.	5.W.6.2a: Capitalization – Applying correct usage of capitalization in writing.

	K.W.6.2b: Punctuation – Recognizing and naming end punctuation.	1.W.6.2b: Punctuation – <ul style="list-style-type: none"> • Correctly using a period, question mark, and exclamation mark at the end of a sentence. • Using commas in dates and to separate items in a series. 	2.W.6.2b: Punctuation – <ul style="list-style-type: none"> • Correctly using a period, question mark, or exclamation mark at the end of a sentence. • Using an apostrophe to form contractions and singular possessive nouns. • Using commas in greetings and closings of letters, dates, and to separate items in a series. 	3.W.6.2b: Punctuation – <ul style="list-style-type: none"> • Correctly using apostrophes to form contractions and singular and plural possessives. • Using quotation marks to mark direct speech. • Using commas in locations and addresses; to mark direct speech; and for coordinating adjectives (e.g., <i>a small, red bicycle</i>). 	4.W.6.2b: Punctuation – <ul style="list-style-type: none"> • Correctly using apostrophes to form possessives and contractions. • Correctly using quotation marks and commas to mark direct speech. • Using a comma before a coordinating conjunction in a compound sentence. 	5.W.6.2b: Punctuation – <ul style="list-style-type: none"> • Applying correct usage of apostrophes and quotation marks in writing. • Using a comma for appositives, to set off the words <i>yes</i> and <i>no</i>, to set off a tag question from the rest of the sentence, and to indicate direct address.
	K.W.6.2c: Spelling – Spelling simple words phonetically, drawing on phonemic awareness.	1.W.6.2c: Spelling – <ul style="list-style-type: none"> • Spelling unknown words phonetically, drawing on phonemic awareness and spelling conventions. • Correctly spelling words with common spelling patterns. • Correctly spelling common irregularly-spelled, grade-appropriate high-frequency words. 	2.W.6.2c: Spelling – <ul style="list-style-type: none"> • Correctly spelling words with short and long vowel sounds, r-controlled vowels, and consonant-blend patterns. • Generalizing learned spelling patterns (e.g., <i>word families</i>) when writing words. • Correctly spelling common irregularly-spelled grade-appropriate high frequency words. 	3.W.6.2c: Spelling – <ul style="list-style-type: none"> • Using conventional spelling for high-frequency and other studied words and for adding affixes to base words. • Using spelling patterns and generalizations (e.g., <i>word families, position-based spellings, syllable patterns, ending rules, meaningful word parts, homophones/homographs</i>) when writing. 	4.W.6.2c: Spelling – Using spelling patterns and generalizations (e.g., <i>word families, position-based spellings, syllable patterns, ending rules, meaningful word parts, homophones/homographs</i>) in writing single and multi-syllable words.	5.W.6.2c: Spelling – Applying correct spelling patterns and generalizations in writing.

SPEAKING AND LISTENING

Guiding Principle: *Students listen actively and communicate effectively for a variety of purposes, including for learning, enjoyment, persuasion, and the exchange of information and ideas. Students adjust their use of language to communicate effectively with a variety of audiences and for different purposes. Students develop an understanding of and respect for diversity in language use, patterns, and dialects.ⁱⁱⁱ*

SPEAKING AND LISTENING:

There are five key areas found in the Speaking and Listening section for grades K-5: Discussion and Collaboration, Comprehension, and Presentation of Knowledge and Ideas. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Speaking and Listening.

In Speaking and Listening, students are expected to do the following:

LEARNING OUTCOME	SL.1: LEARNING OUTCOME FOR SPEAKING AND LISTENING					
	Develop and apply effective communication skills through speaking and active listening					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.SL.1: Listen actively and communicate effectively with a variety of audiences and for different purposes.	1.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>vocabulary</i>) to communicate effectively with a variety of audiences and for different purposes.	2.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, vocabulary</i>) to communicate effectively with a variety of audiences and for different purposes.	3.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i>) to communicate effectively with a variety of audiences and for different purposes.	4.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i>) to communicate effectively with a variety of audiences and for different purposes.	5.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i>) to communicate effectively with a variety of audiences and for different purposes.
DISCUSSION AND COLLABORATION	SL.2: DISCUSSION AND COLLABORATION					
	Develop and apply reciprocal communication skills by participating in a range of collaborative discussions					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.SL.2.1: Participate in collaborative conversations about grade-appropriate topics and texts with peers and adults in small and larger groups.	1.SL.2.1: Participate in collaborative conversations about grade-appropriate topics and texts with peers and adults in small and larger groups.	2.SL.2.1 Participate in collaborative conversations about grade-appropriate topics and texts with peers and adults in small and larger groups.	3.SL.2.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics and texts, building on others' ideas and expressing personal ideas clearly.	4.SL.2.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics and texts, building on others' ideas and expressing personal ideas clearly.	5.SL.2.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics and texts, building on others' ideas and expressing personal ideas clearly.

	K.SL.2.2: <i>Standard begins in third grade.</i>	1.SL.2.2: <i>Standard begins in third grade.</i>	2.SL.2.2: <i>Standard begins in third grade.</i>	3.SL.2.2: Explore ideas under discussion by drawing on readings and other information.	4.SL.2.2: Explore ideas under discussion by drawing on readings and other information.	5.SL.2.2 Reflect on and contribute to ideas under discussion by drawing on readings and other resources.
	K.SL.2.3: Listen to others, take turns speaking, and add one's own ideas to small group discussions or tasks.	1.SL.2.3: Listen to others, take turns speaking about the topic, and add one's own ideas in small group discussions or tasks.	2.SL.2.3: Listen to others, take one's turn in respectful ways, and speak one at a time about the topics and text under discussion.	3.SL.2.3 Demonstrate knowledge and use of agreed-upon rules for discussions and identify and serve in roles for small group discussions or projects.	4.SL.2.3 Demonstrate knowledge and use of agreed-upon rules for discussions and carry out assigned roles.	5.SL.2.3: Establish and follow agreed-upon rules for discussion.
	K.SL.2.4: Ask questions to seek help, get information, or clarify something that is not understood.	1.SL.2.4: Ask questions to clarify information about topics and texts under discussion.	2.SL.2.4 Ask for clarification and further explanation as needed about the topics and texts under discussion.	3.SL.2.4: Ask questions to check understanding of information presented, stay on topic, and link comments to the remarks of others.	4.SL.2.4 Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.	5.SL.2.4: Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
	K.SL.2.5: Continue a conversation through multiple exchanges.	1.SL.2.5: Build on others' talk in conversations by responding to the comments of others through multiple exchanges.	2.SL.2.5 Build on others' talk in conversations by linking comments to the remarks of others.	3.SL.2.5 Explain personal ideas and understanding in reference to the discussion.	4.SL.2.5: Review the key ideas expressed and explain personal ideas in reference to the discussion.	5.SL.2.5: Review the key ideas expressed and draw conclusions in reference to information and knowledge gained from the discussions.

COMPREHENSION	SL.3: COMPREHENSION					
	Develop and apply active listening and interpretation skills using various strategies					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.SL.3.1: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	1.SL.3.1: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	2.SL.3.1: Determine the purpose for listening (e.g., <i>to obtain information, to enjoy humor</i> and paraphrase or describe key ideas or details from a text read aloud or information presented orally or through other media.	3.SL.3.1 Retell, paraphrase, and explain the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively (e.g., <i>charts and graphs</i>), and orally.	4.SL.3.1: Summarize major ideas and supportive evidence from text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	5.SL.3.1: Orally summarize or respond to a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
	K.SL.3.2: Ask appropriate questions about what speaker says.	1.SL.3.2: Ask and answer questions about what a speaker says to clarify something that is not understood.	2.SL.3.2: Ask and answer questions about what a speaker says to clarify comprehension, gather information, or deepen understanding of a topic or issue.	3.SL.3.2 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	4.SL.3.2: Identify and use evidence a speaker provides to support particular points.	5.SL.3.2: Summarize a speaker's points as they relate to main ideas or supporting details and demonstrate how claims are supported by reasons and evidence.

PRESENTATION OF KNOWLEDGE AND IDEAS	SL.4: PRESENTATION OF KNOWLEDGE AND IDEAS					
	Develop and apply speaking skills to communicate ideas effectively in a variety of situations					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.SL.4.1: Speaking audibly, recite poems, rhymes, and songs, and use complete sentences to describe familiar people, places, things, and events and, with support, provide additional details.	1.SL.4.1: Speaking audibly and using appropriate language, recite poems, rhymes, songs, and stories, with careful attention to sensory detail when describing people, places, things, and events.	2.SL.4.1: Using appropriate language, recite poems and rhymes, and tell a story or recount an experience, in an organized manner, with appropriate facts and careful attention to sensory details, speaking audibly in coherent sentences and at an appropriate pace.	3.SL.4.1 Using appropriate language, report on a topic or text, or provide a narrative that organizes ideas chronologically or around major points of information, with appropriate facts and relevant, descriptive details, speaking at an understandable pace, in a clear, concise manner.	4.SL.4.1: Using appropriate language, report on a topic or text or provide a narrative in an organized manner, with effective introductions and conclusions, using appropriate structure, appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly and concisely at an understandable pace.	5.SL.4.1: Using appropriate language, present information on a topic or text, narrative, or opinion in an organized manner, with effective introductions and conclusions, using appropriate structure, appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly and concisely at an understandable pace.
K.SL.4.2: <i>Standard begins in first grade.</i>	1.SL.4.2: Add drawings or other visual displays, such as pictures and objects, when sharing information to clarify ideas, thoughts, and feelings.	2.SL.4.2: Create simple presentations that maintain a clear focus, using various media when appropriate to clarify ideas, thoughts, and feelings.	3.SL.4.2: Create oral presentations that maintain a clear focus, using various media when appropriate to emphasize or enhance certain facts or details.	4.SL.4.2: Create oral presentations that maintain a clear focus, using multimedia to enhance the development of main ideas and themes that engage the audience.	5.SL.4.2: Create engaging presentations that include multimedia components and visual displays when appropriate to enhance the development of main ideas or themes.	
K.SL.4.3: Give, restate, and follow simple two-step directions.	1.SL.4.3: Give and follow three- and four-step directions.	2.SL.4.3: Give and follow multi-step directions.	3.SL.4.3: <i>Students are expected to build upon and continue applying conventions learned previously.</i>	4.SL.4.3: <i>Students are expected to build upon and continue applying conventions learned previously.</i>	5.SL.4.3: <i>Students are expected to build upon and continue applying conventions learned previously.</i>	

MEDIA LITERACY

Guiding Principle: *Students develop critical thinking about the messages received and created by media. Students recognize that media are a part of culture and function as agents of socialization and information, and they develop understanding that people use individual skills, beliefs, and experiences to construct their own meanings from media messages. Students develop media literacy skills in order to become more informed, reflective, and engaged participants in society.^{iv}*

MEDIA LITERACY:

By demonstrating the skills listed in Media Literacy, students should be able to meet the Learning Outcome for Media Literacy.

In Media Literacy, students are expected to do the following:

LEARNING OUTCOME	ML.1: LEARNING OUTCOME FOR MEDIA LITERACY					
	Develop an understanding of media and the roles and purposes of media					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.ML.1: Recognize various types of media.	1.ML.1: Recognize the role of the media in informing, persuading, entertaining, or transmitting culture.	2.ML.1: Recognize the role of the media in informing, persuading, entertaining, and transmitting culture.	3.ML.1: Recognize the role of the media in informing, persuading, entertaining, or transmitting culture.	4.ML.1: Identify how information found in electronic, print, and mass media is used to inform, persuade, entertain, and transmit culture.	5.ML.1: Identify how information found in electronic, print, and mass media is used to inform, persuade, entertain, and transmit culture.
MEDIA LITERACY	ML.2: MEDIA LITERACY					
	Recognize the purposes of media and the ways in which media can have influences					
	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
	K.ML.2.1: Recognize common signs and logos and identify commercials or advertisements.	1.ML.2.1: Demonstrate understanding of media by asking and answering appropriate questions about what is read, heard, or viewed.	2.ML.2.1: Recognize that media can be sources for information, persuasion, interpretation of events, and transmission of culture.	3.ML.2.1: Distinguish among the purposes of various media messages, including for information, persuasion, interpretation of events, or transmission of culture.	4.ML.2.1: Recognize claims in print, image, and multimedia and identify evidence used to support these claims.	5.ML.2.1: Review claims made in various types of media and evaluate evidence used to support these claims.

	K.ML.2.2: <i>Standard begins in fifth grade.</i>	1.ML.2.2: <i>Standard begins in fifth grade.</i>	2.ML.2.2: <i>Standard begins in fifth grade.</i>	3.ML.2.2: <i>Standard begins in fifth grade.</i>	4.ML.2.2: <i>Standard begins in fifth grade.</i>	5.ML.2.2: Identify the role of the media in focusing people's attention on events and in forming their opinions on issues.
--	--	--	--	--	--	---

ⁱ Adapted from *Standards for the English Language*. National Council of Teachers of English and International Reading Association, 1996. Available at <http://www.ncte.org/library/NCTEFiles/Resources/Books/Sample/StandardsDoc.pdf>.

ⁱⁱ Ibid.

ⁱⁱⁱ Ibid.

^{iv} Adapted from *Core Principles of Media Literacy Education in the United States*. National Association for Media Literacy Education, 2007. Available at <http://namle.net/wp-content/uploads/2013/01/CorePrinciples.pdf>.



Indiana Academic Standards
English/Language Arts: Grades 6-12

I. Introduction

The college and career ready Indiana Academic Standards for English/Language Arts are the result of a process designed to identify, evaluate, synthesize, and create the most high-quality, rigorous standards for Indiana students. The definitions that guided this work were created by the Indiana Education Roundtable, Department of Education, Center for Education & Career innovation, Commission for Higher Education and the Department of Workforce Development. The definition for college and career ready by this group and used throughout this process is as follows: “College-and – career ready means an individual has the knowledge, skills and abilities to succeed in post-secondary education and economically-viable career opportunities.” Additionally Public Law 31-2014 [SEA 91] defines college and career readiness educational standards as “the standards that a high school graduate must meet to obtain the requisite knowledge and skill to transition without remediation to post-secondary education or training, and ultimately into a sustainable career.”

Standards Process

The Indiana Academic Standards were created through a collaborative process with input from teams of K-12 educators and parents representing school corporations located throughout the state of Indiana; professors of higher education, representing a wide range of Indiana’s public and private colleges and universities; and representatives from Indiana businesses and industries. The purpose of the standards process was to design college and career ready standards that would ensure students who complete high school in Indiana are ready for college and careers.

History

Public Law 28 was passed by the Indiana General Assembly in 2013, which created Indiana Code 20-19-2-14.5. The law requires the Indiana State Board of Education to perform a comprehensive review of Indiana’s current standards (which were the 201 Common Core State Standards¹ and to adopt college and career ready educational standards no later than July 1, 2014.

In the fall of 2013, the Indiana Department of Education established Technical Teams, which were comprised of K-12 educators in English/Language Arts and Mathematics. The Technical Teams were responsible for reviewing the existing Indiana Academic Standards (Common Core State Standards) and providing suggestions for edits and word changes to improve the clarity and progression of the standards. The Department also created Advisory Teams, which were made up of educators from k-12, parents, community members, and higher education institutions across Indiana. The Advisory Teams were responsible for reviewing the work of the Technical Teams and providing additional input.

Evaluation Process

In January of 2014, the Indiana Department of Education, in collaboration with the Indiana State Board of Education, established Evaluation Teams. The Evaluation Teams were responsible for additional layers beyond the work of the Technical and Advisory Teams. The Evaluation Teams were tasked with conducting a comprehensive analysis of several sets of standards, with the goal of identifying the standards that most clearly aligned with the content and skills that Hoosier students would need to know and be able to do in order to be college and career ready.

Membership for the Evaluation Teams was gleaned from individuals who had previously participated on either a Technical Team or an Advisory Team. The Evaluation Team members were selected for their subject matter expertise (in English/Language Arts or Mathematics) and their classroom teaching experience.

¹ © Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

The Evaluation Teams were made up of K-12 educators who represented a wide variety of Indiana school corporations with over 44 years of combined classroom teaching experience, and higher education subject matter experts in English/Language Arts and Mathematics, representing Indiana's public and private institutions of higher education.

The Evaluation Teams met for the first time in February of 2014. The English/Language Arts evaluation teams were given the E/LA Common Core State Standards, as well as Indiana's 2008 E/LA Academic Standards and the standards created by the National Council of Teachers of English. The Mathematics evaluation teams were given the Mathematics Common Core State Standards, as well as Indiana's 2008 Math Academic Standards, Indiana's 2008 Math Academic Standards, and the standards created by the National Council of Teachers of Mathematics.

The panel was instructed to independently evaluate each set of standards, identifying whether the standard was wholly aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; partially aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; or not aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready. The results of the evaluation were processed according to a forced consensus requirement—a majority requirement was calculated for each group of standards that was reviewed. Any standard that received a fully aligned rating by the majority of reviewers was marked as fully aligned; any standard that received a not aligned rating by the majority of reviewers was marked as not aligned; and any standard that received a partially aligned rating by the majority, or did not have a majority result, was marked as partially aligned.

Once the evaluations were complete, the results were compiled, and the Evaluation Teams were brought together to conduct a consensus process. The consensus process was blind (meaning that the Evaluation Team members did not know the origin of the standards that they were discussing). Through the consensus process, the Evaluation Teams were asked to select the standards that best and most thoroughly represented what students should know and be able to do in various areas of English/Language Arts and Mathematics in order to be college and career ready. The Evaluation Teams selected the standards that they found to be most appropriate; combined standards to create a more appropriate, rigorous, or clear standard; or, if they determined that gaps existed, wrote standards, or reviewed standards from other states (for example, the English/Language Arts Evaluation Teams reviewed the 2010 draft standards from Massachusetts).

Once the Evaluation Teams had selected the standards (from Common Core State Standards, Indiana Academic, or other states) or had written standards where they found gaps, the list of knowledge and skills identified as necessary for students to be college and career ready was posted for public comment.

Public Comment, Public Hearings, and National Expert Review

The draft college and career ready Indiana Academic Standards were posted for the public to review on February 19, 2014. The public was invited to provide comment through March 12. Over 2000 public comments were received. There were also three public hearings, which were held in southern, central, and northern Indiana, to receive public comment on the draft standards.

The comments from both the online public comment and the public hearings were compiled, reviewed and used to contribute to further iterations of the standards.

In addition, a variety of national experts were contacted to review the draft standards posted on February 19. The results of the reviews were discussed, and portions of the reviews were incorporated into further iterations of the standards.

Reconvening of Evaluation Teams

The Evaluation Teams were reconvened in March of 2014. The teams were tasked with incorporating public comment, and a national expert review to ensure that the draft standards were aligned across grade levels and showed appropriate progression from grade to grade. The Evaluation Teams were also tasked with editing and revising standards for clarity, and addressing any other public comments and national expert review around grade appropriateness, bias, embedded pedagogy, or other factors.

Once the Evaluation Teams completed their reviews, the results were sent to the College and Career Ready (CCR) Panels for final review and approval. The results were also shared with additional national experts, who provided reviews. The results of those reviews were analyzed and synthesized and shared with the CCR Panels.

College and Career Ready (CCR) Panels

The College and Career Ready Panels were created in order to ensure that the standards that Indiana developed were aligned with what colleges, universities, industries, and businesses deem necessary for students to be college and career ready. The CCR Panels were made up of subject matter experts from a variety of Indiana public and private colleges and universities, as well as individuals representing Indiana's businesses and industries.

The CCR Panels were brought together in late March of 2014 to review the draft Indiana Academic Standards that had been reviewed and vetted by the Evaluation Teams in mid-March of 2014. The CCR Panels were tasked with reviewing the standards from 12th grade through kindergarten to ensure that the standards were clear and understandable; aligned across grade levels, showing appropriate progression from grade to grade; and designed to prepare students for college and career readiness. The CCR panels met several times throughout the end of March 2014 and early April 2014 to accomplish this task. At their last meeting, the CCR panel members were asked to sign-off on the draft standards, indicating whether, in their professional opinion, the standards were poised to prepare Hoosier students to be college and career ready.



Indiana Academic Standards

The culmination of the efforts of the Technical Teams, Advisory Teams, Evaluation Teams, and CCR Panels is the college and career ready Indiana Academic Standards that are college and career ready. While many of the standards originated from various sources, including the Common Core State Standards; 2000, 2006, and 2011 Indiana Academic Standards; Massachusetts 2011 Draft English/Language Arts Standards; Virginia Standards of Learning; Nebraska English/Language Arts Standards; the National Council of Teachers of Mathematics; and the National Council of Teachers of English, a number of original standards were also written by members of the Evaluation Teams or CCR Panels.

The process was designed to identify the clearest, most rigorous, and best aligned standards in Mathematics and English/Language Arts to ensure that Hoosier students will graduate meeting the definitions for college and career as defined in Indiana's processes.

What are college and career ready Indiana Academic Standards?

The college and career ready Indiana Academic Standards are designed to help educators, parents, students, and community members understand what students need to know and be able to do at each grade level, and within each content strand, in order to exit high school college and career ready. The Indiana Academic Standards for English/Language Arts demonstrate what students should know and be able to do in the areas of Reading, Writing, Speaking and Listening, and Media Literacy. The Indiana Academic Standards for Mathematics demonstrate what students should know and be able to do in the areas of K-8 Mathematics; Algebra I, II, and Geometry; and higher-level high school Mathematics courses. The Indiana Academic Standards for Content Area Literacy (History/Social Studies and Science/Technical Subjects) indicate ways in which students should be able to incorporate literacy skills into various content areas at the 6-12 grade levels.

What are the college and career ready Indiana Academic Standards NOT?

1). *The standards are not curriculum.*

While the standards may be used as the basis for curriculum, **the college and career ready Indiana Academic Standards are not a curriculum**. Therefore, identifying the sequence of instruction at each grade—what will be taught and for how long—requires concerted effort and attention at the corporation and school levels. While the standards may have examples embedded, and resource materials may include guidelines and suggestions, the standards do not prescribe any particular curriculum. Curriculum is determined locally by a corporation or school and is a prescribed learning plan toward educational goals that includes curricular tools and instructional materials, including textbooks, that are selected by the corporation/school and adopted through the local school board.

2). *The standards are not instructional practices.*

While the standards demonstrate what Hoosier students should know and be able to do in order to be prepared for college and careers, the standards are not instructional practices. The educators and subject matter experts that worked on the standards have taken care to ensure that the standards are free from embedded pedagogy and instructional practices. **The standards do not define how teachers should teach**. The standards must be complemented by well-developed, aligned, and appropriate curricular materials, as well as robust and effective instructional best practices.

3). *The standards do not necessarily address students who are far below or far above grade-level.*

The standards are designed to show what the average Hoosier student should know and be able to do in order to be prepared for college and career. However, some students may be far below grade level or in need of special education, and other students may be far above grade level. The standards do not provide differentiation or intervention methods necessary to support and meet the needs of these students. It is up to the district, school, and educators to determine the best and most effective mechanisms of standards delivery for these students.

4). *The standards do not cover all aspects of what is necessary for college and career readiness*

While the standards cover what have been identified as essential skills for Hoosier students to be ready for college and careers, the standards are not—and cannot be—an exhaustive list of what students need in order to be ready for life after high school. Students, especially younger students, require a wide range of

physical, social, and emotional supports in order to be prepared for the rigors of each educational progression (elementary grades to middle grades; middle grades to high school; and high school to college or career).

II. Acknowledgements

The college and career ready Indiana Academic Standards could not have been developed without the time, dedication, and expertise of Indiana's K-12 teachers, parents higher education professors, and representatives of Indiana business and industry. Additionally, the members of the public, including parents, community members, policymakers, and educators who took time to provide public comments, whether through the online comment tool or in person at the various public hearings, have played a key role in contributing to the Indiana Academic Standards.

The Indiana Department of Education and Indiana State Board of Education would like to thank Ms. Sujie Shin of the Center on Standards and Assessment Implementation for providing expert facilitation throughout the process and acting in an advisory capacity. The Department and Board would also like to thank the individuals and organizations who provided national expert reviews of the draft standards.

We wish to specially acknowledge the members of the Technical Teams, Advisory Teams, Evaluation Teams, and College and Career Ready Panels who dedicated hundreds of hours to the review, evaluation, synthesis, rewriting, and creation of standards designed to be of the highest quality so that our Hoosier students who are ready for college and careers.

READING

Guiding Principle: *Students read a wide range of fiction, nonfiction, classic, and contemporary works, to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They read a wide range of literature in many genres from a variety of time periods and cultures from around the world to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience. They draw on their prior experience, their interactions with other readers and writers, and reading skills that they have developed and refined.ⁱ*

READING: Literature

There are three key areas found in the Reading: Literature section for grades 6-12: Key Ideas and Textual Support, Structural Elements and Organization, and Synthesis and Connection of Ideas. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Literature.

In Reading: Literature, students are expected to do the following:

LEARNING OUTCOME	RL.1: LEARNING OUTCOME FOR READING LITERATURE				
	Read and comprehend a variety of literature independently and proficiently				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RL.1: Read a variety of literature within a range of complexity appropriate for grades 6-8. By the end of grade 6, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed at the high end of the range.	7.RL.1: Read a variety of literature within a range of complexity appropriate for grades 6-8. By the end of grade 7, students interact with texts proficiently and independently at the middle of the range and with scaffolding as needed for texts at the high end of the range.	8.RL.1: Read a variety of literature within a range of complexity appropriate for grades 6-8. By the end of grade 8, students interact with texts proficiently and independently.	9-10.RL.1: Read a variety of literature within a range of complexity appropriate for grades 9-10. By the end of grade 9, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed for texts at the high end of the range. By the end of grade 10, students interact with texts proficiently and independently.	11-12.RL.1: Read a variety of literature within a range of complexity appropriate for grades 11-CCR. By the end of grade 11, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed for texts at the high end of the range. By the end of grade 12, students interact with texts proficiently and independently.

KEY IDEAS AND TEXTUAL SUPPORT	RL.2: KEY IDEAS AND TEXTUAL SUPPORT				
	Build comprehension and appreciation of literature by analyzing, inferring, and drawing conclusions about literary elements, themes, and central ideas				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RL.2.1: Cite textual evidence to support analysis of what a text says explicitly as well as inferences drawn from the text.	7.RL.2.1: Cite several pieces of textual evidence to support analysis of what a text says explicitly as well as inferences drawn from the text.	8.RL.2.1: Cite the textual evidence that most strongly supports an analysis of what a text says explicitly as well as inferences drawn from the text.	9-10.RL.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text.	11-12.RL.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text, including determining where the text leaves matters uncertain.
	6.RL.2.2: Determine how a theme or central idea of a work of literature is conveyed through particular details; provide a detailed, objective summary of the text.	7.RL.2.2: Analyze the development of a theme or central idea over the course of a work of literature; provide a detailed summary that supports the analysis.	8.RL.2.2: Analyze the development of a theme or central idea over the course of a work of literature, including its relationship to the characters, setting, and plot; provide a detailed summary that supports the analysis.	9-10.RL.2.2: Analyze in detail the development of two or more themes or central ideas over the course of a work of literature, including how they emerge and are shaped and refined by specific details.	11-12.RL.2.2: Compare and contrast the development of similar themes or central ideas across two or more works of literature and analyze how they emerge and are shaped and refined by specific details.
	6.RL.2.3: Explain how a plot unfolds in a series of episodes as well as how the characters respond or change as the narrative advances and moves toward a resolution.	7.RL.2.3: Analyze the interaction of elements in a work of literature (e.g., <i>how setting shapes the characters or plot</i>).	8.RL.2.3: Analyze how particular lines of dialogue or incidents in a work of literature propel the action, reveal aspects of a character, or provoke a decision.	9-10.RL.2.3: Analyze how dynamic characters (e.g., <i>those with multiple or conflicting motivations</i>) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	11-12.RL.2.3: Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., <i>where a story is set, how the action is ordered, how the characters are introduced and developed</i>).
	6.RL.2.4: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	7.RL.2.4: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	8.RL.2.4: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	9-10.RL.2.4: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	11-12.RL.2.4: <i>Students are expected to build upon an continue applying concepts learned previously.</i>

STRUCTURAL ELEMENTS AND ORGANIZATION	RL.3: STRUCTURAL ELEMENTS AND ORGANIZATION				
	Build comprehension and appreciation of literature, using knowledge of literary structure and point of view				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RL.3.1: Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a work of literature and contributes to the development of the theme, characterization, setting, or plot.	7.RL.3.1: Analyze how a work of literature's structural elements such as subplots, parallel episodes, climax, and conflicts contribute to its meaning and plot.	8.RL.3.1: Compare and contrast the structure of two or more related works of literature (e.g., <i>similar topic or theme</i>), and analyze and evaluate how the differing structure of each text contributes to its meaning and style.	9-10.RL.3.1: Analyze and evaluate how an author's choices concerning how to structure a work of literature, order events within it (e.g., <i>parallel episodes</i>), and manipulate time (e.g., <i>pacing, flashbacks</i>) create such effects as mystery, tension, or surprise.	11-12.RL.3.1: Analyze and evaluate how an author's choices concerning how to structure specific parts of a work of literature (e.g., <i>the choice of where to begin or end a story, the choice to provide comedic or tragic resolution</i>) contribute to its overall structure and meaning as well as its aesthetic impact.
SYNTHESIS AND CONNECTION OF IDEAS	6.RL.3.2: Explain how an author develops the point of view of the narrator or speaker in a work of literature and how the narrator or speaker impacts the mood, tone, and meaning of a text.	7.RL.3.2: Analyze how an author develops and contrasts the points of view of different characters or narrators in a work of literature.	8.RL.3.2: Analyze a particular point of view or cultural experience in a work of world literature considering how it reflects heritage, traditions, attitudes, and beliefs.	9-10.RL.3.2: Analyze how the author creates such effects as suspense or humor through differences in the points of view of the characters and the reader (e.g., <i>created through the use of dramatic irony</i>).	11-12.RL.3.2: Analyze a work of literature in which the reader must distinguish between what is directly stated and what is intended (e.g., <i>satire, sarcasm, irony, or understatement</i>) in order to understand the point of view.
	RL.4: SYNTHESIS AND CONNECTION OF IDEAS				
	Build comprehension and appreciation of literature by connecting various literary works and analyzing how medium and interpretation impact meaning				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RL.4.1: Compare and contrast the experience of reading a story, play, or poem with listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text with what they perceive when they listen or watch.	7.RL.4.1: Compare and contrast a written story, play or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., <i>lighting, sound, color, or camera focus and angles in a film</i>).	8.RL.4.1: Analyze the extent to which a filmed or live production of a story or play stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.	9-10.RL.4.1: Analyze multiple interpretations of a story, play, or poem, evaluating how each version interprets the source text.	11-12.RL.4.1: Analyze multiple interpretations of a story, play, or poem, evaluating how each version interprets the source text and the impact of the interpretations on the audience.

	6.RL.4.2: Compare and contrast works of literature in different forms or genres (e.g., <i>stories and poems; historical novels and fantasy stories</i> in terms of their approaches to similar themes and topics.	7.RL.4.2: Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.	8.RL.4.2: Analyze how works of literature draw on and transform earlier texts.	9-10.RL.4.2: Analyze and evaluate how works of literary or cultural significance (American, English, or world) draw on themes, patterns of events, or character types from myths, traditional stories, or religious works, including describing how the material is rendered new.	11-12.RL.4.2: Analyze and evaluate works of literary or cultural significance in history (American, English, or world) and the way in which these works have used archetypes drawn from myths, traditional stories, or religious works, as well as how two or more of the works treat similar themes, conflicts, issues, or topics.
--	--	---	---	--	--

READING: *Nonfiction*

There are three key areas found in the Reading: Nonfiction section for grades 6-12: Key Ideas and Textual Support, Structural Elements and Organization, and Synthesis and Connection of Ideas. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Nonfiction.

In Reading: Nonfiction, students are expected to do the following:

LEARNING OUTCOME	RN.1: LEARNING OUTCOME FOR READING NONFICTION				
	Read and comprehend a variety of nonfiction independently and proficiently				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RN.1: Read a variety of nonfiction within a range of complexity appropriate for grades 6-8. By the end of grade 6, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed at the high end of the range.	7.RN.1: Read a variety of nonfiction within a range of complexity appropriate for grades 6-8. By the end of grade 7, students interact with texts proficiently and independently at the middle of the range and with scaffolding as needed for texts at the high end of the range.	8.RN.1: Read a variety of nonfiction within a range of complexity appropriate for grades 6-8. By the end of grade 8, students interact with texts proficiently and independently.	9-10.RN.1: Read a variety of nonfiction within a range of complexity appropriate for grades 9-10. By the end of grade 9, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed for texts at the high end of the range. By the end of grade 10, students interact with texts proficiently and independently.	11-12.RN.1: Read a variety of nonfiction within a range of complexity appropriate for grades 11-CCR. By the end of grade 11, students interact with texts proficiently and independently at the low end of the range and with scaffolding as needed for texts at the high end of the range. By the end of grade 12, students interact with texts proficiently and independently.

KEY IDEAS AND TEXTUAL SUPPORT	RN.2: KEY IDEAS AND TEXTUAL SUPPORT				
	Extract and construct meaning from nonfiction texts using a range of comprehension skills				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RN.2.1: Cite textual evidence to support analysis of what a text says explicitly as well as inferences drawn from the text.	7.RN.2.1: Cite several pieces of textual evidence to support analysis of what a text says explicitly as well as inferences drawn from the text.	8.RN.2.1: Cite the textual evidence that most strongly supports an analysis of what a text says explicitly as well as inferences drawn from the text.	9-10.RN.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text.	11-12.RN.2.1: Cite strong and thorough textual evidence to support analysis of what a text says explicitly as well as inferences and interpretations drawn from the text, including determining where the text leaves matters uncertain.
	6.RN.2.2: Determine how a central idea of a text is conveyed through particular details; provide an objective summary of the text.	7.RN.2.2: Analyze the development of two or more central ideas over the course of a text; provide a detailed, objective summary of the text.	8.RN.2.2: Analyze the development of a central idea over the course of a text, including its relationship to supporting ideas; provide a detailed, objective summary of the text.	9-10.RN.2.2: Analyze in detail the development of two or more central ideas over the course of a text, including how they interact and build on one another to provide a complex analysis.	11-12.RN.2.2: Compare and contrast the development of similar central ideas across two or more texts and analyze how they emerge and are shaped and refined by specific details.
	6.RN.2.3: Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., <i>through examples or anecdotes</i>).	7.RN.2.3: Analyze the interactions between individuals, events, and ideas in a text (e.g., <i>how ideas influence individuals or events, or how individuals influence ideas or events</i>).	8.RN.2.3: Analyze how a text makes connections and distinctions among individuals, events, and ideas.	9-10.RN.2.3: Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.	11-12.RN.2.3: Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of a text.
STRUCTURAL ELEMENTS AND ORGANIZATION	RN.3: STRUCTURAL ELEMENTS AND ORGANIZATION				
	Build understanding of nonfiction text, using knowledge of structural organization and author's purpose and message				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RN.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	7.RN.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	8.RN.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	9-10.RN.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>	11-12.RN.3.1: <i>Students are expected to build upon and continue applying concepts learned previously.</i>

	6.RN.3.2: Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	7.RN.3.2: Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.	8.RN.3.2: Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.	9-10.RN.3.2: Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text.	11-12.RN.3.2: Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
	6.RN.3.3: Determine an author's perspective or purpose in a text, and explain how it is conveyed in the text.	7.RN.3.3: Determine an author's perspective or purpose in a text, and analyze how the author distinguishes his or her position from the positions of others.	8.RN.3.3: Determine an author's perspective or purpose in a text, and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	9-10.RN.3.3: Determine an author's perspective or purpose in a text, and analyze how an author uses rhetoric to advance that perspective or purpose.	11-12.RN.3.3: Determine an author's perspective or purpose in a text in which the rhetoric is particularly effective (e.g., <i>appeals to both friendly and hostile audiences, anticipates and addresses reader concerns and counterclaims</i>), analyzing how style and content contribute to the power, persuasiveness or beauty of the text.
SYNTHESIS AND CONNECTION OF IDEAS	RN.4: SYNTHESIS AND CONNECTION OF IDEAS				
	Build understanding of nonfiction texts by evaluating specific claims and synthesizing and connecting ideas				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RN.4.1: Trace and evaluate the argument and specific claims in a text, distinguishing claims that the author supports with reasons and evidence from claims that are not supported.	7.RN.4.1: Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims, noting instances of bias and stereotyping.	8.RN.4.1: Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.	9-10.RN.4.1: Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.	11-12.RN.4.1: Delineate and evaluate the arguments and specific claims in seminal U.S. and world texts, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.

	6.RN.4.2: Integrate information presented in different media or formats (e.g., <i>visually, quantitatively, verbally</i>) to demonstrate a coherent understanding of a topic or issue.	7.RN.4.2: Compare and contrast a print or digital text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., <i>how the delivery of speech affects the impact of the words</i>).	8.RN.4.2: Evaluate the advantages and disadvantages of using different mediums (e.g., <i>print or digital text, video, multimedia</i>) to present a particular topic or idea.	9-10.RN.4.2: Analyze various accounts of a subject told in different mediums (e.g., <i>a person's life story in both print and multimedia</i>), determining which details are emphasized in each account.	11-12.RN.4.2: Synthesize and evaluate multiple sources of information presented in different media or formats as well as in words in order to address a question or solve a problem.
	6.RN.4.3: Compare and contrast one author's presentation of events with that of another.	7.RN.4.3: Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.	8.RN.4.3: Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.	9-10.RN.4.3: Analyze seminal U.S. and world documents of historical and literary significance, including how they address related themes and concepts.	11-12.RN.4.3: Analyze and synthesize foundational U.S. and world documents of historical and literary significance for their themes, purposes, and rhetorical features.

READING: Vocabulary

There are two key areas found in the Reading: Vocabulary section for grades 6-12: Vocabulary Building and Vocabulary in Literature and Nonfiction Texts. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Reading: Vocabulary.

In Reading: Vocabulary, students are expected to do the following:

LEARNING OUTCOME	RV.1: LEARNING OUTCOME FOR READING VOCABULARY				
	Acquire, refine, and apply vocabulary using various strategies and sources				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RV.1: Acquire and use accurately grade-appropriate general academic and content-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	7.RV.1: Acquire and use accurately grade-appropriate general academic and content-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	8.RV.1: Acquire and use accurately grade-appropriate general academic and content-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.	9-10.RV.1: Acquire and use accurately general academic and content-specific words and phrases at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	11-12.RV.1: Acquire and use accurately general academic and content-specific words and phrases at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

VOCABULARY BUILDING	RV.2: VOCABULARY BUILDING				
	Build and refine vocabulary by using strategies to determine and clarify words and understand their relationships				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RV.2.1: Use context to determine or clarify the meaning of words and phrases.	7.RV.2.1: Use context to determine or clarify the meaning of words and phrases.	8.RV.2.1: Use context to determine or clarify the meaning of words and phrases.	9-10.RV.2.1: Use context to determine or clarify the meaning of words and phrases.	11-12.RV.2.1: Use context to determine or clarify the meaning of words and phrases.
	6.RV.2.2: Use the relationship between particular words (e.g., <i>cause/effect, part/whole, item/category</i>) to better understand each of the words.	7.RV.2.2: Use the relationship between particular words (e.g., <i>synonym/antonym, analogy</i>) to better understand each of the words.	8.RV.2.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	9-10.RV.2.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	11-12.RV.2.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>
	6.RV.2.3: Distinguish among the connotations of words with similar denotations.	7.RV.2.3: Distinguish among the connotations of words with similar denotations.	8.RV.2.3: Distinguish among the connotations of words with similar denotations.	9-10.RV.2.3: Analyze nuances in the meaning of words with similar denotations.	11-12.RV.2.3: Analyze nuances in the meaning of words with similar denotations.
	6.RV.2.4: Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>).	7.RV.2.4: Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of words (e.g., <i>belligerent, bellicose, rebel</i>).	8.RV.2.4: Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>precede, recede, secede</i>).	9-10.RV.2.4: Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>analyze, analysis, analytical; advocate, advocacy</i>).	11-12.RV.2.4: Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>conceive, conception, conceivable</i>).
	6.RV.2.5: Consult reference materials, both print and digital (e.g., <i>dictionary, thesaurus</i>), to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or origin.	7.RV.2.5: Consult general and specialized reference materials, both print and digital (e.g., <i>dictionary, thesaurus, style guide</i>), to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or origin.	8.RV.2.5: Select appropriate general and specialized reference materials, both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or origin.	9-10.RV.2.5: Select appropriate general and specialized reference materials, both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or etymology.	11-12.RV.2.5: Select appropriate general and specialized reference materials, both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, etymology, or standard usage.

VOCABULARY IN LITERATURE AND NONFICTION TEXTS	RV.3: VOCABULARY IN LITERATURE AND NONFICTION TEXTS				
	Build comprehension and appreciation of literature and nonfiction texts by determining or clarifying figurative, connotative, and technical meanings				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.RV.3.1: Determine the meaning of words and phrases as they are used in works of literature, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	7.RV.3.1: Determine the meaning of words and phrases as they are used in works of literature, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., <i>alliteration</i> within a story, poem, or play.	8.RV.3.1: Analyze the meaning of words and phrases as they are used in works of literature, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	9-10.RV.3.1: Analyze the meaning of words and phrases as they are used in works of literature, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings.	11-12.RV.3.1: Analyze the meaning of words and phrases as they are used in works of literature, including figurative and connotative meanings; analyze the cumulative impact of specific word choices (e.g., <i>imagery, allegory, and symbolism</i>) on meaning and tone (e.g., <i>how the language evokes a sense of time and place; how it sets a formal or informal tone</i>).
	6.RV.3.2: Determine the meaning of words and phrases as they are used in a nonfiction text, including figurative, connotative, and technical meanings.	7.RV.3.2: Determine the meaning of words and phrases as they are used in a nonfiction text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	8.RV.3.2: Determine the meaning of words and phrases as they are used in a nonfiction text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	9-10.RV.3.2: Determine the meaning of words and phrases as they are used in a nonfiction text, including figurative, connotative, and technical meanings; evaluate the effectiveness of specific word choices on meaning and tone (e.g., <i>how the language of court opinion differs from that of a newspaper</i>).	11-12.RV.3.2: Determine the meaning of words and phrases as they are used in a nonfiction text, including figurative, connotative, and technical meanings; evaluate the cumulative impact of how an author uses and refines the meaning of a key term or terms over the course of a text.
	6.RV.3.3: Interpret figures of speech (e.g., <i>personification</i>) in context.	7.RV.3.3: Interpret figures of speech (e.g., <i>literary, religious, and mythological allusions</i> in context.	8.RV.3.3: Interpret figures of speech (e.g. <i>verbal irony, puns</i>) in context.	9-10.RV.3.3: Interpret figures of speech (e.g., <i>euphemism, oxymoron</i> in context and analyze their role in the text.	11-12.RV.3.3: Interpret figures of speech (e.g., <i>paradox</i> in context and analyze their role in the text.

WRITING

Guiding Principle: *Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes. Students apply knowledge of language structure, language conventions, media techniques, figurative language, and genre to create, critique, and discuss writing. Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources to communicate their discoveries in ways that suit their purpose and audience.ⁱⁱ*

WRITING:

There are four key areas found in the Writing section for grades 6-12: Writing Genres, the Writing Process, the Research Process, and Conventions of Standard English. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Writing.

In Writing, students are expected to do the following:

LEARNING OUTCOME	W.1: LEARNING OUTCOME FOR WRITING				
	Write effectively for a variety of tasks, purposes, and audiences				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.W.1: Write routinely over a variety of time frames for a range of tasks, purposes, and audiences; apply reading standards to support analysis, reflection, and research by drawing evidence from literature and nonfiction texts.	7.W.1: Write routinely over a variety of time frames for a range of tasks, purposes, and audiences; apply reading standards to support analysis, reflection, and research by drawing evidence from literature and nonfiction texts.	8.W.1: Write routinely over a variety of time frames for a range of tasks, purposes, and audiences; apply reading standards to support analysis, reflection, and research by drawing evidence from literature and nonfiction texts.	9-10.W.1: Write routinely over a variety of time frames for a range of tasks, purposes, and audiences; apply reading standards to support analysis, reflection, and research by drawing evidence from literature and nonfiction texts.	11-12.W.1: Write routinely over a variety of time frames for a range of tasks, purposes, and audiences; apply reading standards to support analysis, reflection, and research by drawing evidence from literature and nonfiction texts.
HANDWRITING	W.2: HANDWRITING				
	Demonstrate the ability to write legibly				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.W.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	7.W.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	8.W.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	9-10.W.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	11-12.W.2: <i>Students are expected to build upon an continue applying concepts learned previously.</i>

W.3: WRITING GENRES: Develop and refine writing skills by writing for different purposes and to specific audiences or people					
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
ARGUMENTATIVE	<p>6.W.3.1: Write arguments in a variety of forms that –</p> <ul style="list-style-type: none"> ● Introduce claim(s), using strategies such as textual analysis, comparison/contrast and cause/effect. ● Use an organizational structure to group related ideas that support the argument. ● Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. ● Establish and maintain a consistent style and tone appropriate to purpose and audience. ● Use appropriate transitions that enhance the progression of the text and clarify the relationships among claim(s) and reasons. ● Provide a concluding statement or section that follows from the argument presented. 	<p>7.W.3.1: Write arguments in a variety of forms that –</p> <ul style="list-style-type: none"> ● Introduce claim(s), acknowledge alternate or opposing claims, and use appropriate organizational structures. ● Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. ● Establish and maintain a consistent style and tone appropriate to purpose and audience. ● Use effective transitions to create cohesion and clarify the relationships among claim(s), reasons, and evidence. ● Provide a concluding statement or section that follows from and supports the argument presented. 	<p>8.W.3.1: Write arguments in a variety of forms that –</p> <ul style="list-style-type: none"> ● Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. ● Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. ● Use effective transitions to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. ● Establish and maintain a consistent style and tone appropriate to purpose and audience. ● Provide a concluding statement or section that follows from and supports the argument presented. 	<p>9-10.W.3.1 Write arguments in a variety of forms that –</p> <ul style="list-style-type: none"> ● Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence. ● Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level and concerns. ● Use effective transitions to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. ● Establish and maintain a consistent style and tone appropriate to purpose and audience. ● Provide a concluding statement or section that follows from and supports the argument presented. 	<p>11-12.W.3.1: Write arguments in a variety of forms that –</p> <ul style="list-style-type: none"> ● Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. ● Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases. ● Use effective transitions as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. ● Establish and maintain a consistent style and tone appropriate to purpose and audience. ● Provide a concluding statement or section that follows from and supports the argument presented.

INFORMATIVE	<p>6.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> ● Introduce a topic; organize ideas, concepts, and information, using strategies such as definition and classification. ● Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples from various sources and texts. ● Use appropriate transitions to clarify the relationships among ideas and concepts. ● Include formatting (e.g., <i>headings</i>), graphics (e.g., <i>charts, tables</i>), and multimedia when useful to aiding comprehension. ● Choose language and content-specific vocabulary that express ideas precisely and concisely, recognizing and eliminating wordiness and redundancy. ● Establish and maintain a style appropriate to purpose and audience. ● Provide a concluding statement or section that follows from the information or explanation presented. 	<p>7.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> ● Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition and classification; include formatting (e.g., <i>headings</i>), graphics (e.g., <i>charts, tables</i>), and multimedia when useful to aiding comprehension. ● Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples from various sources and texts. ● Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts. ● Choose language and content-specific vocabulary that express ideas precisely and concisely, recognizing and eliminating wordiness and redundancy. ● Establish and maintain a style appropriate to purpose and audience. ● Provide a concluding statement or section that follows from and supports the information or explanation presented. 	<p>8.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> ● Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., <i>headings</i>), graphics (e.g., <i>charts, tables</i>), and multimedia when useful to aiding comprehension. ● Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples from various sources and texts. ● Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. ● Choose language and content-specific vocabulary that express ideas precisely and concisely, recognizing and eliminating wordiness and redundancy. ● Establish and maintain a style appropriate to the purpose and audience. ● Provide a concluding statement or section that follows from and supports the information or explanation presented. 	<p>9-10.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> ● Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., <i>headings</i>), graphics (e.g., <i>figures, tables</i>), and multimedia when useful to aiding comprehension. ● Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. ● Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. ● Choose language and content-specific vocabulary that express ideas precisely and concisely to manage the complexity of the topic, recognizing and eliminating wordiness and redundancy. ● Establish and maintain a style appropriate to the purpose and audience. ● Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., <i>articulating implications or the significance of the topic</i>). 	<p>11-12.W.3.2: Write informative compositions on a variety of topics that –</p> <ul style="list-style-type: none"> ● Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., <i>headings</i>), graphics (e.g., <i>figures, tables</i>), and multimedia when useful to aiding comprehension. ● Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. ● Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. ● Choose language, content-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic, recognizing and eliminating wordiness and redundancy. ● Establish and maintain a style appropriate to the purpose and audience. ● Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., <i>articulating implications or the significance of the topic</i>).
-------------	--	--	--	--	--

NARRATIVE	6.W.3.3: Write narrative compositions in a variety of forms that –	7.W.3.3: Write narrative compositions in a variety of forms that –	8.W.3.3: Write narrative compositions in a variety of forms that –	9-10.W.3.3: Write narrative compositions in a variety of forms that –	11-12.W.3.3: Write narrative compositions in a variety of forms that –
	<ul style="list-style-type: none"> Engage and orient the reader by developing an exposition (e.g., <i>describe the setting, establish the situation, introduce the narrator and/or characters</i>). 	<ul style="list-style-type: none"> Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters. 	<ul style="list-style-type: none"> Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters. 	<ul style="list-style-type: none"> Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters. 	<ul style="list-style-type: none"> Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters.
	<ul style="list-style-type: none"> Organize an event sequence (e.g. <i>conflict, climax, resolution</i>) that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. 	<ul style="list-style-type: none"> Organize an event sequence (e.g., <i>conflict, climax, resolution</i>) that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. 	<ul style="list-style-type: none"> Organize an event sequence (e.g., <i>conflict, climax, resolution</i>) that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. 	<ul style="list-style-type: none"> Create a smooth progression of experiences or events. 	<ul style="list-style-type: none"> Create a smooth progression of experiences or events.
	<ul style="list-style-type: none"> Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. 	<ul style="list-style-type: none"> Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. 	<ul style="list-style-type: none"> Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters. 	<ul style="list-style-type: none"> Use narrative techniques, (e.g., <i>dialogue, pacing, description, reflection, and multiple plot lines</i>), to develop experiences, events, and/or characters. 	<ul style="list-style-type: none"> Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.
	<ul style="list-style-type: none"> Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. Provide an ending that follows from the narrated experiences or events. 	<ul style="list-style-type: none"> Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. Provide an ending that follows from and reflects on the narrated experiences or events. 	<ul style="list-style-type: none"> Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. Provide an ending that follows from and reflects on the narrated experiences or events. 	<ul style="list-style-type: none"> Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. Provide an ending that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. 	<ul style="list-style-type: none"> Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., <i>a sense of mystery, suspense, growth, or resolution</i>). Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. Provide an ending that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

THE WRITING PROCESS	W.4: THE WRITING PROCESS				
	Produce coherent and legible documents by planning, drafting, revising, editing, and collaborating with others				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	<p>6.W.4: Apply the writing process to –</p> <p>Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.</p> <p>Use technology to interact and collaborate with others to generate, produce, and publish writing.</p>	<p>7.W.4: Apply the writing process to –</p> <p>Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.</p> <p>Use technology to interact and collaborate with others to generate, produce, and publish writing and link to sources.</p>	<p>8.W.4: Apply the writing process to –</p> <p>Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.</p> <p>Use technology to interact and collaborate with others to generate, produce, and publish writing and present information and ideas efficiently.</p>	<p>9-10.W.4: Apply the writing process to –</p> <p>Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.</p> <p>Use technology to generate, produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically (e.g., <i>use of publishing programs, integration of multimedia</i>).</p>	<p>11-12.W.4: Apply the writing process to –</p> <p>Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.</p> <p>Use technology to generate, produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p>

FINDING, ASSESSING, SYNTHESIZING, AND REPORTING INFORMATION	W.5: THE RESEARCH PROCESS				
	Build knowledge about the research process and the topic under study by conducting research				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	<p>6.W.5: Conduct short research assignments and tasks to build knowledge about the research process and the topic under study.</p> <ul style="list-style-type: none"> ● Formulate a research question (e.g., <i>In what ways did Madame Walker influence Indiana society?</i>). ● Gather relevant information from multiple sources, and annotate sources. ● Assess the credibility of each source. ● Quote or paraphrase the information and conclusions of others. ● Avoid plagiarism and provide basic bibliographic information for sources. ● Present information, choosing from a variety of formats. 	<p>7.W.5: Conduct short research assignments and tasks to build knowledge about the research process and the topic under study.</p> <ul style="list-style-type: none"> ● Formulate a research question. ● Gather relevant information from multiple sources, using search terms effectively, and annotate sources. ● Assess the credibility and accuracy of each source. ● Quote or paraphrase the information and conclusions of others. ● Avoid plagiarism and follow a standard format for citation. ● Present information, choosing from a variety of formats. 	<p>8.W.5: Conduct short research assignments and tasks to build knowledge about the research process and the topic under study.</p> <ul style="list-style-type: none"> ● Formulate a research question. ● Gather relevant information from multiple sources, using search terms effectively, and annotate sources. ● Assess the credibility and accuracy of each source. ● Quote or paraphrase the information and conclusions of others. ● Avoid plagiarism and follow a standard format for citation. ● Present information, choosing from a variety of formats. 	<p>9-10.W.5: Conduct short as well as more sustained research assignments and tasks to build knowledge about the research process and the topic under study.</p> <ul style="list-style-type: none"> ● Formulate an inquiry question, and refine and narrow the focus as research evolves. ● Gather relevant information from multiple authoritative sources, using advanced searches effectively, and annotate sources. ● Assess the usefulness of each source in answering the research question. ● Synthesize and integrate information into the text selectively to maintain the flow of ideas. ● Avoid plagiarism and overreliance on any one source and follow a standard format (e.g., <i>MLA</i>, <i>APA</i>) for citation. ● Present information, choosing from a variety of formats. 	<p>11-12.W.5: Conduct short as well as more sustained research assignments and tasks to build knowledge about the research process and the topic under study.</p> <ul style="list-style-type: none"> ● Formulate an inquiry question, and refine and narrow the focus as research evolves. ● Gather relevant information from multiple types of authoritative sources, using advanced searches effectively, and annotate sources. ● Assess the strengths and limitations of each source in terms of the task, purpose, and audience. ● Synthesize and integrate information into the text selectively to maintain the flow of ideas. ● Avoid plagiarism and overreliance on any one source and follow a standard format (e.g., <i>MLA</i>, <i>APA</i>) for citation. ● Present information, choosing from a variety of formats.

W.6: CONVENTIONS OF STANDARD ENGLISH					
Demonstrate command of the conventions of standard English					
GRAMMAR AND USAGE	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.W.6.1: Demonstrate command of English grammar and usage, focusing on:	7.W.6.1: Demonstrate command of English grammar and usage, focusing on:	8.W.6.1: Demonstrate command of English grammar and usage, focusing on:	9-10.W.6.1: Demonstrate command of English grammar and usage, focusing on:	11-12.W.6.1: Demonstrate command of English grammar and usage, focusing on:
	6.W.6.1a: Pronouns – Using a variety of pronouns, including subject, object, possessive, and reflexive; ensuring pronoun-antecedent agreement; recognizing and correcting vague pronouns (i.e., ones with unclear or ambiguous antecedents).	7.W.6.1a: Pronouns – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	8.W.6.1a: Pronouns – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	9-10.W.6.1a: Pronouns – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	11-12.W.6.1a: Pronouns – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
	6.W.6.1b: Verbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	7.W.6.1b: Verbs – Recognizing and correcting problems with subject/verb agreement.	8.W.6.1b: Verbs – Explaining the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences; forming and using active and passive voice; recognizing and correcting inappropriate shifts in verb voice.	9-10.W.6.1b: Verbs – Forming and using verbs in the indicative, imperative, interrogative, conditional, and subjunctive moods.	11-12.W.6.1b: Verbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
	6.W.6.1c: Adjectives and Adverbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	7.W.6.1c: Adjectives and Adverbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	8.W.6.1c: Adjectives and Adverbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	9-10.W.6.1c: Adjectives and Adverbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	11-12.W.6.1c: Adjectives and Adverbs – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
	6.W.6.1d: Phrases and Clauses – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	7.W.6.1d: Phrases and Clauses – Recognizing and correcting misplaced and dangling modifiers.	8.W.6.1d: Phrases and Clauses – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	9-10.W.6.1d: Phrases and Clauses – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	11-12.W.6.1d: Phrases and Clauses – <i>Students are expected to build upon and continue applying conventions learned previously.</i>

	6.W.6.1e: Usage – Writing simple, compound, complex, and compound-complex sentences; recognizing sentence fragments and run-ons.	7.W.6.1e: Usage – Writing simple, compound, complex, and compound-complex sentences; recognizing and correcting sentence fragments and run-ons; varying sentence patterns for meaning, reader interest, and style.	8.W.6.1e: Usage – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	9-10.W.6.1e: Usage – Identifying and using parallelism in all writing to present items in a series and items juxtaposed for emphasis.	11-12.W.6.1e: Usage – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
CAPITALIZATION, PUNCTUATION, AND SPELLING	6.W.6.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling focusing on:	7.W.6.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling focusing on:	8.W.6.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling focusing on:	9-10.W.6.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling focusing on:	11-12.W.6.2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling focusing on:
	6.W.6.2a: Capitalization – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	7.W.6.2a: Capitalization – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	8.W.6.2a: Capitalization – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	9-10.W.6.2a: Capitalization – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	11-12.W.6.2a: Capitalization – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
	6.W.6.2b: Punctuation – <ul style="list-style-type: none"> Using punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements. Using semicolons to connect main clauses and colons to introduce a list or quotation. 	7.W.6.2b: Punctuation – <ul style="list-style-type: none"> Using commas with subordinate clauses. 	8.W.6.2b: Punctuation – <ul style="list-style-type: none"> Using punctuation (comma, ellipsis, dash) to indicate a pause, break, or omission. 	9-10.W.6.2b: Punctuation – <ul style="list-style-type: none"> Using a semicolon and a conjunctive adverb to link two or more closely related independent clauses. 	11-12.W.6.2b: Punctuation – <i>Students are expected to build upon and continue applying conventions learned previously.</i>
	6.W.6.2c: Spelling – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	7.W.6.2c: Spelling – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	8.W.6.2c: Spelling – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	9-10.W.6.2c: Spelling – <i>Students are expected to build upon and continue applying conventions learned previously.</i>	11-12.W.6.2c: Spelling – <i>Students are expected to build upon and continue applying conventions learned previously.</i>

SPEAKING AND LISTENING

Guiding Principle: *Students listen actively and communicate effectively for a variety of purposes, including for learning, enjoyment, persuasion, and the exchange of information and ideas. Students adjust their use of language to communicate effectively with a variety of audiences and for different purposes. Students develop an understanding of and respect for diversity in language use, patterns, and dialects.ⁱⁱⁱ*

SPEAKING AND LISTENING

There are three key areas found in the Speaking and Listening section for grades 6-12: Discussion and Collaboration, Comprehension, and Presentation of Knowledge and Ideas. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Speaking and Listening.

In Speaking and Listening, students are expected to do the following:

LEARNING OUTCOME	SL.1: LEARNING OUTCOME FOR SPEAKING AND LISTENING				
	Refine and apply effective communication skills through speaking and active listening				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i> to communicate effectively with a variety of audiences and for different purposes.	7.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i> to communicate effectively with a variety of audiences and for different purposes.	8.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i> to communicate effectively with a variety of audiences and for different purposes.	9-10.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i> to communicate effectively with a variety of audiences and for different purposes.	11-12.SL.1: Listen actively and adjust the use of spoken language (e.g., <i>conventions, style, vocabulary</i> to communicate effectively with a variety of audiences and for different purposes.
DISCUSSION AND COLLABORATION	SL.2: DISCUSSION AND COLLABORATION				
	Refine and apply reciprocal communication skills by participating in a range of collaborative discussions				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.SL.2.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics, texts, and issues, building on others' ideas and expressing personal ideas clearly.	7.SL.2.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics, texts, and issues, building on others' ideas and expressing personal ideas clearly.	8.SL.2.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics, texts, and issues, building on others' ideas and expressing personal ideas clearly.	9-10.SL.2.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics, texts, and issues, building on others' ideas and expressing personal ideas clearly and persuasively.	11-12.SL.2.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) on grade-appropriate topics, texts, and issues, building on others' ideas and expressing personal ideas clearly and persuasively.
	6.SL.2.2: Elaborate and	7.SL.2.2: Investigate and	8.SL.2.2: Examine, analyze,	9-10.SL.2.2: Examine,	11-12.SL.2.2: Stimulate a

	reflect on ideas under discussion by identifying specific evidence from materials under study and other resources.	reflect on ideas under discussion by identifying specific evidence from materials under study and other resources.	and reflect on ideas under discussion by identifying specific evidence from materials under study and other resources.	analyze, and reflect on ideas and support or refute points under discussion, by providing specific evidence from materials under study and other resources.	thoughtful, well-reasoned debate and exchange of ideas by referring to specific evidence from materials under study and additional research and resources.
	6.SL.2.3: Follow rules for considerate discussions, set specific goals and deadlines, and define individual roles as needed.	7.SL.2.3: Follow rules for considerate discussions, track progress toward specific goals and deadlines, and define individual roles as needed.	8.SL.2.3: Follow rules for considerate discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.	9-10.SL.2.3: Work with peers to set rules for collegial discussions and decision-making (e.g., <i>informal consensus, taking votes on key issues, presentation of alternate views</i>), clear goals and deadlines, and individual roles as needed.	11-12.SL.2.3: Work with peers to promote collegial discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.
	6.SL.2.4: Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.	7.SL.2.4: Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.	8.SL.2.4: Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.	9-10.SL.2.4: Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.	11-12.SL.2.4: Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
	6.SL.2.5: Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.	7.SL.2.5: Acknowledge new information expressed by others, and consider it in relation to one's own views.	8.SL.2.5: Acknowledge new information expressed by others, and, when warranted, qualify or justify personal views in reference to the evidence presented.	9-10.SL.2.5: Respond thoughtfully to multiple perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify personal views and understanding and make new connections in reference to the evidence and reasoning presented.	11-12.SL.2.5: Conduct debate and discussion to allow all views to be presented; allow for a dissenting view, in addition to group compromise; and determine what additional information or research is required to deepen the investigation or complete the task.

COMPREHENSION	SL.3: COMPREHENSION				
	Refine and apply active listening and interpretation skills using various strategies				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.SL.3.1: Interpret information presented in diverse media and formats (e.g., <i>visually, quantitatively, orally</i> and explain how it contributes to a topic, text, or issue under study.	7.SL.3.1: Analyze the main ideas and supporting details presented in diverse media and formats (e.g., <i>visually, quantitatively, orally</i> and explain how the ideas clarify a topic, text, or issue under study.	8.SL.3.1: Analyze the purpose of information presented in diverse media and formats (e.g., <i>visually, quantitatively, orally</i> and evaluate the motives (e.g., <i>social, commercial, political</i> behind its presentation.	9-10.SL.3.1: Integrate multiple sources of information presented in diverse media and formats (e.g., <i>visually, quantitatively, orally</i> evaluating the credibility and accuracy of each source.	11-12.SL.3.1: Integrate multiple sources of information presented in diverse media and formats (e.g., <i>visually, quantitatively, orally</i> in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.
	6.SL.3.2: Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.	7.SL.3.2: Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.	8.SL.3.2: Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.	9-10.SL.3.2: Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	11-12.SL.3.2: Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

PRESENTATION OF KNOWLEDGE AND IDEAS	SL.4: PRESENTATION OF KNOWLEDGE AND IDEAS				
	Refine and apply speaking skills to communicate ideas effectively in a variety of situations				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.SL.4.1: Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.	7.SL.4.1: Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.	8.SL.4.1: Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	9-10.SL.4.1: Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	11-12.SL.4.1: Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
	6.SL.4.2: Create engaging presentations that include multimedia components (e.g., <i>graphics, images, music, sound</i> and visual displays in presentations to clarify information.	7.SL.4.2: Create engaging presentations that include multimedia components and visual displays to clarify claims and findings and emphasize salient points.	8.SL.4.2: Create engaging presentations that integrate multimedia components and visual displays to clarify information, strengthen claims and evidence, and add interest.	9-10.SL.4.2: Create engaging presentations that make strategic and creative use of digital media (e.g., <i>textual, graphical, audio, visual, and interactive elements</i> to add interest and enhance understanding of findings, reasoning, and evidence.	11-12.SL.4.2: Create engaging presentations that make strategic and creative use of digital media (e.g., <i>textual, graphical, audio, visual, and interactive elements</i> to add interest and enhance understanding of findings, reasoning, and evidence.
	6.SL.4.3: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	7.SL.4.3: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	8.SL.4.3: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	9-10.SL.4.3: <i>Students are expected to build upon an continue applying concepts learned previously.</i>	11-12.SL.4.3: <i>Students are expected to build upon an continue applying concepts learned previously.</i>

MEDIA LITERACY

Guiding Principle: *Students develop critical thinking about the messages received and created by media. Students recognize that media are a part of culture and function as agents of socialization and develop understanding that people use individual skills, beliefs, and experiences to construct their own meanings from media messages. Students develop media literacy skills in order to become more informed, reflective, and engaged participants in society.^{iv}*

MEDIA LITERACY

By demonstrating the skills listed in Media Literacy, students should be able to meet the Learning Outcome for Media Literacy.

In Media Literacy, students are expected to do the following:

LEARNING OUTCOME	ML.1: LEARNING OUTCOME FOR MEDIA LITERACY				
	Develop and enhance understanding of the roles of media and techniques and strategies used to achieve various purposes				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.ML.1: Critically analyze information found in electronic, print, and mass media used to inform, persuade, entertain, and transmit culture.	7.ML.1: Critically analyze information found in electronic, print, and mass media used to inform, persuade, entertain, and transmit culture.	8.ML.1: Critically analyze information found in electronic, print, and mass media used to inform, persuade, entertain, and transmit culture.	9-10.ML.1: Critically analyze information found in electronic, print, and mass media used to inform, persuade, entertain, and transmit culture.	11-12.ML.1: Critically analyze information found in electronic, print, and mass media used to inform, persuade, entertain, and transmit culture.
MEDIA LITERACY	ML.2: MEDIA LITERACY				
	Analyze the purposes of media and the ways in which media can have influences				
	GRADE 6	GRADE 7	GRADE 8	GRADES 9-10	GRADES 11-12
	6.ML.2.1: Use evidence to evaluate the accuracy of information presented in multiple media messages.	7.ML.2.1: Interpret the various ways in which events are presented and information is communicated by visual image-makers to influence the public.	8.ML.2.1: Identify and analyze persuasive and propaganda techniques used in visual and verbal messages by electronic, print and mass media, and identify false or misleading information.	9-10.ML.2.1: Analyze how media include or exclude information from visual and verbal messages to achieve a desired result.	11-12.ML.2.1: Evaluate the intersections and conflicts between visual and verbal messages, and recognize how visual techniques or design elements carry or influence messages in various media.
	6.ML.2.2: Identify the target audience of particular media message, using the context of the message (e.g., <i>where it is placed, when it runs, etc.</i>)	7.ML.2.2: Analyze the ways that the media use words and images to attract the public's attention.	8.ML.2.2: Analyze and interpret how people experience media messages differently, depending on point of view, culture, etc.	9-10.ML.2.2: Analyze and interpret the changing role of the media over time in focusing the public's attention on events and in forming their opinions on issues.	11-12.ML.2.2: Analyze the impact of the media on the public, including identifying and analyzing rhetorical and logical fallacies.

ⁱ Adapted from *Standards for the English Language*. National Council of Teachers of English and International Reading Association, 1996. Available at <http://www.ncte.org/library/NCTEFiles/Resources/Books/Sample/StandardsDoc.pdf>.

ⁱⁱ Ibid.

ⁱⁱⁱ Ibid.

^{iv} Adapted from *Core Principles of Media Literacy Education in the United States*. National Association for Media Literacy Education, 2007. Available at <http://namle.net/wp-content/uploads/2013/01/CorePrinciples.pdf>.



Indiana Academic Standards
Content Area Literacy: History/Social Studies

I. Introduction

The college and career ready Indiana Academic Standards for English/Language Arts are the result of a process designed to identify, evaluate, synthesize, and create the most high-quality, rigorous standards for Indiana students. The definitions that guided this work were created by the Indiana Education Roundtable, Department of Education, Center for Education & Career innovation, Commission for Higher Education and the Department of Workforce Development. The definition for college and career ready by this group and used throughout this process is as follows: “College-and – career ready means an individual has the knowledge, skills and abilities to succeed in post-secondary education and economically-viable career opportunities.” Additionally Public Law 31-2014 [SEA 91] defines college and career readiness educational standards as “the standards that a high school graduate must meet to obtain the requisite knowledge and skill to transition without remediation to post-secondary education or training, and ultimately into a sustainable career.”

Standards Process

The Indiana Academic Standards were created through a collaborative process with input from teams of K-12 educators and parents representing school corporations located throughout the state of Indiana; professors of higher education, representing a wide range of Indiana’s public and private colleges and universities; and representatives from Indiana businesses and industries. The purpose of the standards process was to design college and career ready standards that would ensure students who complete high school in Indiana are ready for college and careers.

History

Public Law 286 was passed by the Indiana General Assembly in 2013, which created Indiana Code 20-19-2-14.5. The law requires the Indiana State Board of Education to perform a comprehensive review of Indiana’s current standards (which were the 2010 Common Core State Standards¹) and to adopt college and career ready educational standards no later than July 1, 2014.

In the fall of 2013, the Indiana Department of Education established Technical Teams, which were comprised of K-12 educators in English/Language Arts and Mathematics. The Technical Teams were responsible for reviewing the existing Indiana Academic Standards (Common Core State Standards) and providing suggestions for edits and word changes to improve the clarity and progression of the standards. The Department also created Advisory Teams, which were made up of educators from k-12, parents, community members, and higher education institutions across Indiana. The Advisory Teams were responsible for reviewing the work of the Technical Teams and providing additional input.

Evaluation Process

In January of 2014, the Indiana Department of Education, in collaboration with the Indiana State Board of Education, established Evaluation Teams. The Evaluation Teams were responsible for additional layers beyond the work of the Technical and Advisory Teams. The Evaluation Teams were tasked with conducting a comprehensive analysis of several sets of standards, with the goal of identifying the standards that most clearly aligned with the content and skills that Hoosier students would need to know and be able to do in order to be college and career ready.

Membership for the Evaluation Teams was gleaned from individuals who had previously participated on either a Technical Team or an Advisory Team. The Evaluation Team members were selected for their subject matter expertise (in English/Language Arts or Mathematics) and their classroom teaching experience. The Evaluation Teams were made up of K-12 educators who represented a wide variety of Indiana school corporations with over 445 years of combined

¹ © Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

classroom teaching experience, and higher education subject matter experts in English/Language Arts and Mathematics, representing Indiana's public and private institutions of higher education.

The Evaluation Teams met for the first time in February of 2014. The English/Language Arts evaluation teams were given the E/LA Common Core State Standards, as well as Indiana's 2006 E/LA Academic Standards and the standards created by the National Council of Teachers of English. The Mathematics evaluation teams were given the Mathematics Common Core State Standards, as well as Indiana's 2000 Math Academic Standards, Indiana's 2009 Math Academic Standards, and the standards created by the National Council of Teachers of Mathematics.

The panel was instructed to independently evaluate each set of standards, identifying whether the standard was wholly aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; partially aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; or not aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready. The results of the evaluation were processed according to a forced consensus requirement—a majority requirement was calculated for each group of standards that was reviewed. Any standard that received a fully aligned rating by the majority of reviewers was marked as fully aligned; any standard that received a not aligned rating by the majority of reviewers was marked as not aligned; and any standard that received a partially aligned rating by the majority, or did not have a majority result, was marked as partially aligned.

Once the evaluations were complete, the results were compiled, and the Evaluation Teams were brought together to conduct a consensus process. The consensus process was blind (meaning that the Evaluation Team members did not know the origin of the standards that they were discussing). Through the consensus process, the Evaluation Teams were asked to select the standards that best and most thoroughly represented what students should know and be able to do in various areas of English/Language Arts and Mathematics in order to be college and career ready. The Evaluation Teams selected the standards that they found to be most appropriate; combined standards to create a more appropriate, rigorous, or clear standard; or, if they determined that gaps existed, wrote standards, or reviewed standards from other states (for example, the English/Language Arts Evaluation Teams reviewed the 2010 draft standards from Massachusetts).

Once the Evaluation Teams had selected the standards (from Common Core State Standards, Indiana Academic, or other states) or had written standards where they found gaps, the list of knowledge and skills identified as necessary for students to be college and career ready was posted for public comment.

Public Comment, Public Hearings, and National Expert Review

The draft college and career ready Indiana Academic Standards were posted for the public to review on February 19, 2014. The public was invited to provide comment through March 12. Over 2000 public comments were received. There were also three public hearings, which were held in southern, central, and northern Indiana, to receive public comment on the draft standards.

The comments from both the online public comment and the public hearings were compiled, reviewed and used to contribute to further iterations of the standards.

In addition, a variety of national experts were contacted to review the draft standards posted on February 19. The results of the reviews were discussed, and portions of the reviews were incorporated into further iterations of the standards.

Reconvening of Evaluation Teams

The Evaluation Teams were reconvened in March of 2014. The teams were tasked with incorporating public comment, and a national expert review to ensure that the draft standards were aligned across grade levels and showed appropriate progression from grade to grade. The Evaluation Teams were also tasked with editing and revising standards for clarity, and addressing any other public comments and national expert review around grade appropriateness, bias, embedded pedagogy, or other factors.

Once the Evaluation Teams completed their reviews, the results were sent to the College and Career Ready (CCR) Panels for final review and approval. The results were also shared with additional national experts, who provided reviews. The results of those reviews were analyzed and synthesized and shared with the CCR Panels.

College and Career Ready (CCR) Panels

The College and Career Ready Panels were created in order to ensure that the standards that Indiana developed were aligned with what colleges, universities, industries, and businesses deem necessary for students to be college and career ready. The CCR Panels were made up of subject matter experts from a variety of Indiana public and private colleges and universities, as well as individuals representing Indiana's businesses and industries.

The CCR Panels were brought together in late March of 2014 to review the draft Indiana Academic Standards that had been reviewed and vetted by the Evaluation Teams in mid-March of 2014. The CCR Panels were tasked with reviewing the standards from 12th grade through kindergarten to ensure that the standards were clear and understandable; aligned across grade levels, showing appropriate progression from grade to grade; and designed to prepare students for college and career readiness. The CCR panels met several times throughout the end of March 2014 and early April 2014 to accomplish this task. At their last meeting, the CCR panel members were asked to sign-off on the draft standards, indicating whether, in their professional opinion, the standards were poised to prepare Hoosier students to be college and career ready.



Indiana Academic Standards

The culmination of the efforts of the Technical Teams, Advisory Teams, Evaluation Teams, and CCR Panels is the college and career ready Indiana Academic Standards that are college and career ready. While many of the standards originated from various sources, including the Common Core State Standards; 2000, 2006, and 2009 Indiana Academic Standards; Massachusetts 2010 Draft English/Language Arts Standards; Virginia Standards of Learning; Nebraska English/Language Arts Standards; the National Council of Teachers of Mathematics; and the National Council of Teachers of English, a number of original standards were also written by members of the Evaluation Teams or CCR Panels.

The process was designed to identify the clearest, most rigorous, and best aligned standards in Mathematics and English/Language Arts to ensure that Hoosier students will graduate meeting the definitions for college and career as defined in Indiana's processes.

What are college and career ready Indiana Academic Standards?

The college and career ready Indiana Academic Standards are designed to help educators, parents, students, and community members understand what students need to know and be able to do at each grade level, and within each content strand, in order to exit high school college and career ready. The Indiana Academic Standards for English/Language Arts demonstrate what students should know and be able to do in the areas of Reading, Writing, Speaking and Listening, and Media Literacy. The Indiana Academic Standards for Mathematics demonstrate what students should know and be able to do in the areas of K-8 Mathematics; Algebra I, II, and Geometry; and higher-level high school Mathematics courses. The Indiana Academic Standards for Content Area Literacy (History/Social Studies and Science/Technical Subjects) indicate ways in which students should be able to incorporate literacy skills into various content areas at the 6-12 grade levels.

What are the college and career ready Indiana Academic Standards NOT?

1). The standards are not curriculum.

While the standards may be used as the basis for curriculum, **the college and career ready Indiana Academic Standards are not a curriculum**. Therefore, identifying the sequence of instruction at each grade—what will be taught and for how long—requires concerted effort and attention at the corporation and school levels. While the standards may have examples embedded, and resource materials may include guidelines and suggestions, the standards do not prescribe any particular curriculum. Curriculum is determined locally by a corporation or school and is a prescribed learning plan toward educational goals that includes curricular tools and instructional materials, including textbooks, that are selected by the corporation/school and adopted through the local school board.

2). The standards are not instructional practices.

While the standards demonstrate what Hoosier students should know and be able to do in order to be prepared for college and careers, the standards are not instructional practices. The educators and subject matter experts that worked on the standards have taken care to ensure that the standards are free from embedded pedagogy and instructional practices. **The standards do not define how teachers should teach**. The standards must be complemented by well-developed, aligned, and appropriate curricular materials, as well as robust and effective instructional best practices.

3). The standards do not necessarily address students who are far below or far above grade-level.

The standards are designed to show what the average Hoosier student should know and be able to do in order to be prepared for college and career. However, some students may be far below grade level or in need of special education, and other students may be far above grade level. The standards do not provide differentiation or intervention methods necessary to support and meet the needs of these students. It is up to the district, school, and educators to determine the best and most effective mechanisms of standards delivery for these students.

4). The standards do not cover all aspects of what is necessary for college and career readiness

While the standards cover what have been identified as essential skills for Hoosier students to be ready for college and careers, the standards are not—and cannot be—an exhaustive list of what students need in order to be ready for life after high school. Students, especially younger students, require a wide range of physical, social, and emotional supports in order to be prepared for the rigors of each educational progression (elementary grades to middle grades; middle grades to high school; and high school to college or career).

II. Acknowledgements

The college and career ready Indiana Academic Standards could not have been developed without the time, dedication, and expertise of Indiana’s K-12 teachers, parents higher education professors, and representatives of Indiana business and industry. Additionally, the members of the public, including parents, community members, policymakers, and educators who took time to provide public comments, whether through the online comment tool or in person at the various public hearings, have played a key role in contributing to the Indiana Academic Standards.

The Indiana Department of Education and Indiana State Board of Education would like to thank Ms. Sujie Shin of the Center on Standards and Assessment Implementation for providing expert facilitation throughout the process and acting in an advisory capacity. The Department and Board would also like to thank the individuals and organizations who provided national expert reviews of the draft standards.

We wish to specially acknowledge the members of the Technical Teams, Advisory Teams, Evaluation Teams, and College and Career Ready Panels who dedicated hundreds of hours to the review, evaluation, synthesis, rewriting, and creation of standards designed to be of the highest quality so that our Hoosier students who are ready for college and careers.

LITERACY IN HISTORY/SOCIAL STUDIES:

Guiding Principle: *Students develop discipline-specific reading and writing skills. Within the areas of History/Social Studies, students apply these skills in order to develop a deeper understanding of the content area.*

There are six key areas found in the Literacy in History/Social Studies section for grades 6-12: Key Ideas and Textual Support, Structural Elements and Organization, Synthesis and Connection of Ideas, Writing Genres, the Writing Process, and the Research Process. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Literacy in History/Social Studies.

Note that the standards in this section are not designed for implementation in an English/Language Arts classroom. Instead, they provide guidance to content area teachers in grades 6-12 (e.g., History/Social Studies teachers, Science teachers, Career and Technical Education teachers, etc.) on expectations for integrating reading and writing skills into their classrooms.

In Literacy in History/Social Studies, students are expected to do the following:

LEARNING OUTCOMES	LH.1: LEARNING OUTCOME FOR LITERACY IN HISTORY/SOCIAL STUDIES		
	Read and comprehend history/social studies texts independently and proficiently, and write effectively for a variety of discipline-specific tasks, purposes, and audiences		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.1.1: Read and comprehend history/social studies texts within a range of complexity appropriate for grades 6-8 independently and proficiently by the end of grade 8.	9-10.LH.1.1: Read and comprehend history/social studies texts within a range of complexity appropriate for grades 9-10 independently and proficiently by the end of grade 10.	11-12.LH.1.1: Read and comprehend history/social studies texts within a range of complexity appropriate for grades 11-CCR independently and proficiently by the end of grade 12.
KEY IDEAS AND TEXTUAL SUPPORT	6-8.LH.1.2: Write routinely over a variety of time frames for a range of discipline-specific tasks, purposes, and audiences.	9-10.LH.1.2: Write routinely over a variety of time frames for a range of discipline-specific tasks, purposes, and audiences.	11-12.LH.1.2: Write routinely over a variety of time frames for a range of discipline-specific tasks, purposes, and audiences.
	LH.2: KEY IDEAS AND TEXTUAL SUPPORT (READING)		
	Extract and construct meaning from history/social studies texts using a variety of comprehension skills		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.2.1: Cite specific textual evidence to support analysis of primary and secondary sources.	9-10.LH.2.1: Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.	11-12.LH.2.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
	6-8.LH.2.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	9-10.LH.2.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	11-12.LH.2.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

	6-8.LH.2.3: Identify key steps in a text’s description of a process related to history/social studies (e.g., <i>how a bill becomes a law, how interest rates are raised or lowered</i>).	9-10.LH.2.3: Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.	11-12.LH.2.3: Evaluate various explanations for actions or events, and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
STRUCTURAL ELEMENTS AND ORGANIZATION	LH.3: STRUCTURAL ELEMENTS AND ORGANIZATION (READING) Build understanding of history/social studies texts, using knowledge of structural organization and author’s purpose and message		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.3.1: Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.	9-10.LH.3.1: Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.	11-12.LH.3.1: Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., <i>how Madison defines faction in Federalist No. 10</i>).
	6-8.LH.3.2: Describe how a text presents information (e.g., <i>sequentially, comparatively, causally</i>).	9-10.LH.3.2: Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.	11-12.LH.3.2: Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.
	6-8.LH.3.3: Identify aspects of a text that reveal an author’s perspective or purpose (e.g., <i>loaded language, inclusion or avoidance of particular facts</i>).	9-10.LH.3.3: Compare the perspectives of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.	11-12.LH.3.3: Evaluate authors’ differing perspectives on the same historical event or issue by assessing the authors’ claims, reasoning, and evidence.
SYNTHESIS AND CONNECTION OF IDEAS	LH.4: SYNTHESIS AND CONNECTION OF IDEAS (READING) Build understanding of history/social studies texts by synthesizing and connecting ideas and evaluating specific claims		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.4.1: Integrate visual information (e.g., <i>charts, graphs, photographs, videos, or maps</i>) with other information in print and digital texts.	9-10.LH.4.1: Integrate quantitative or technical analysis (e.g., <i>charts, research data</i>) with qualitative analysis in print or digital text.	11-12.LH.4.1: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., <i>visually, quantitatively, as well as in words</i>) in order to address a question or solve a problem.
	6-8.LH.4.2: Distinguish among fact, opinion, and reasoned judgment in a text.	9-10.LH.4.2: Assess the extent to which the reasoning and evidence in a text support the author’s claims.	11-12.LH.4.2: Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other information.
	6-8.LH.4.3: Compare and contrast treatments of the same topic in a primary and secondary source.	9-10.LH.4.3: Analyze the relationships among primary and secondary sources on the same topic.	11-12.LH.4.3: Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

WRITING GENRES	LH.5: WRITING GENRES (WRITING)		
	Write for different purposes and to specific audiences or people		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.5.1: Write arguments focused on discipline-specific content.	9-10.LH.5.1: Write arguments focused on discipline-specific content.	11-12.LH.5.1: Write arguments focused on discipline-specific content.
	6-8.LH.5.2: Write informative texts, including analyses of historical events.	9-10.LH.5.2: Write informative texts, including analyses of historical events.	11-12.LH.5.2: Write informative texts, including analyses of historical events.
THE WRITING PROCESS	LH.6: THE WRITING PROCESS (WRITING)		
	Produce coherent and legible documents by planning, drafting, revising, editing, and collaborating with others		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.	9-10.LH.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.	11-12.LH.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.
	6-8.LH.6.2: Use technology to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	9-10.LH.6.2: Use technology to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	11-12.LH.6.2: Use technology to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
THE RESEARCH PROCESS	LH.7: THE RESEARCH PROCESS (WRITING)		
	Build knowledge about the research process and the topic under study by conducting short or more sustained research		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LH.7.1: Conduct short research assignments and tasks to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	9-10.LH.7.1: Conduct short as well as more sustained research assignments and tasks to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	11-12.LH.7.1: Conduct short as well as more sustained research assignments and tasks to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

<p>6-8.LH.7.2: Gather relevant information from multiple sources, using search terms effectively; annotate sources; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation (e.g., <i>APA</i> or <i>Chicago</i>).</p>	<p>9-10.LH.7.2: Gather relevant information from multiple authoritative sources, using advanced searches effectively; annotate sources; assess the usefulness of each source in answering the research question; synthesize and integrate information into the text selectivity to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (e.g., <i>APA</i> or <i>Chicago</i>).</p>	<p>11-12.LH.7.2: Gather relevant information from multiple types of authoritative sources, using advanced searches effectively; annotate sources; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; synthesize and integrate information into the text selectivity to maintain the flow of ideas, avoiding plagiarism and overreliance on any once source and following a standard format for citation (e.g., <i>APA</i> or <i>Chicago</i>).</p>
<p>6-8.LH.7.3: Draw evidence from informational texts to support analysis, reflection, and research.</p>	<p>9-10.LH.7.3: Draw evidence from informational texts to support analysis, reflection, and research.</p>	<p>11-12.LH.7.3: Draw evidence from informational texts to support analysis, reflection, and research.</p>



Indiana Academic Standards
Content Area Literacy: Science/Technical Subjects

I. Introduction

The college and career ready Indiana Academic Standards for English/Language Arts are the result of a process designed to identify, evaluate, synthesize, and create the most high-quality, rigorous standards for Indiana students. The definitions that guided this work were created by the Indiana Education Roundtable, Department of Education, Center for Education & Career innovation, Commission for Higher Education and the Department of Workforce Development. The definition for college and career ready by this group and used throughout this process is as follows: “College-and – career ready means an individual has the knowledge, skills and abilities to succeed in post-secondary education and economically-viable career opportunities.” Additionally Public Law 31-2014 [SEA 91] defines college and career readiness educational standards as “the standards that a high school graduate must meet to obtain the requisite knowledge and skill to transition without remediation to post-secondary education or training, and ultimately into a sustainable career.”

Standards Process

The Indiana Academic Standards were created through a collaborative process with input from teams of K-12 educators and parents representing school corporations located throughout the state of Indiana; professors of higher education, representing a wide range of Indiana’s public and private colleges and universities; and representatives from Indiana businesses and industries. The purpose of the standards process was to design college and career ready standards that would ensure students who complete high school in Indiana are ready for college and careers.

History

Public Law 286 was passed by the Indiana General Assembly in 2013, which created Indiana Code 20-19-2-14.5. The law requires the Indiana State Board of Education to perform a comprehensive review of Indiana’s current standards (which were the 2010 Common Core State Standards¹) and to adopt college and career ready educational standards no later than July 1, 2014.

In the fall of 2013, the Indiana Department of Education established Technical Teams, which were comprised of K-12 educators in English/Language Arts and Mathematics. The Technical Teams were responsible for reviewing the existing Indiana Academic Standards (Common Core State Standards) and providing suggestions for edits and word changes to improve the clarity and progression of the standards. The Department also created Advisory Teams, which were made up of educators from k-12, parents, community members, and higher education institutions across Indiana. The Advisory Teams were responsible for reviewing the work of the Technical Teams and providing additional input.

Evaluation Process

In January of 2014, the Indiana Department of Education, in collaboration with the Indiana State Board of Education, established Evaluation Teams. The Evaluation Teams were responsible for additional layers beyond the work of the Technical and Advisory Teams. The Evaluation Teams were tasked with conducting a comprehensive analysis of several sets of standards, with the goal of identifying the standards that most clearly aligned with the content and skills that Hoosier students would need to know and be able to do in order to be college and career ready.

Membership for the Evaluation Teams was gleaned from individuals who had previously participated on either a Technical Team or an Advisory Team. The Evaluation Team members were selected for their subject matter expertise (in English/Language Arts or Mathematics) and their classroom teaching experience. The Evaluation Teams were made up of K-12 educators who represented a wide variety of Indiana school corporations with over 445 years of combined

¹ © Copyright 2010. National Governors Association Center for Best Practices and Council of Chief State School Officers. All rights reserved.

classroom teaching experience, and higher education subject matter experts in English/Language Arts and Mathematics, representing Indiana’s public and private institutions of higher education.

The Evaluation Teams met for the first time in February of 2014. The English/Language Arts evaluation teams were given the E/LA Common Core State Standards, as well as Indiana’s 2006 E/LA Academic Standards and the standards created by the National Council of Teachers of English. The Mathematics evaluation teams were given the Mathematics Common Core State Standards, as well as Indiana’s 2000 Math Academic Standards, Indiana’s 2009 Math Academic Standards, and the standards created by the National Council of Teachers of Mathematics.

The panel was instructed to independently evaluate each set of standards, identifying whether the standard was wholly aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; partially aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready; or not aligned with what a Hoosier student would need to know and be able to do in order to be college and career ready. The results of the evaluation were processed according to a forced consensus requirement—a majority requirement was calculated for each group of standards that was reviewed. Any standard that received a fully aligned rating by the majority of reviewers was marked as fully aligned; any standard that received a not aligned rating by the majority of reviewers was marked as not aligned; and any standard that received a partially aligned rating by the majority, or did not have a majority result, was marked as partially aligned.

Once the evaluations were complete, the results were compiled, and the Evaluation Teams were brought together to conduct a consensus process. The consensus process was blind (meaning that the Evaluation Team members did not know the origin of the standards that they were discussing). Through the consensus process, the Evaluation Teams were asked to select the standards that best and most thoroughly represented what students should know and be able to do in various areas of English/Language Arts and Mathematics in order to be college and career ready. The Evaluation Teams selected the standards that they found to be most appropriate; combined standards to create a more appropriate, rigorous, or clear standard; or, if they determined that gaps existed, wrote standards, or reviewed standards from other states (for example, the English/Language Arts Evaluation Teams reviewed the 2010 draft standards from Massachusetts).

Once the Evaluation Teams had selected the standards (from Common Core State Standards, Indiana Academic, or other states) or had written standards where they found gaps, the list of knowledge and skills identified as necessary for students to be college and career ready was posted for public comment.

Public Comment, Public Hearings, and National Expert Review

The draft college and career ready Indiana Academic Standards were posted for the public to review on February 19, 2014. The public was invited to provide comment through March 12. Over 2000 public comments were received. There were also three public hearings, which were held in southern, central, and northern Indiana, to receive public comment on the draft standards.

The comments from both the online public comment and the public hearings were compiled, reviewed and used to contribute to further iterations of the standards.

In addition, a variety of national experts were contacted to review the draft standards posted on February 19. The results of the reviews were discussed, and portions of the reviews were incorporated into further iterations of the standards.

Reconvening of Evaluation Teams

The Evaluation Teams were reconvened in March of 2014. The teams were tasked with incorporating public comment, and a national expert review to ensure that the draft standards were aligned across grade levels and showed appropriate progression from grade to grade. The Evaluation Teams were also tasked with editing and revising standards for clarity, and addressing any other public comments and national expert review around grade appropriateness, bias, embedded pedagogy, or other factors.

Once the Evaluation Teams completed their reviews, the results were sent to the College and Career Ready (CCR) Panels for final review and approval. The results were also shared with additional national experts, who provided reviews. The results of those reviews were analyzed and synthesized and shared with the CCR Panels.

College and Career Ready (CCR) Panels

The College and Career Ready Panels were created in order to ensure that the standards that Indiana developed were aligned with what colleges, universities, industries, and businesses deem necessary for students to be college and career ready. The CCR Panels were made up of subject matter experts from a variety of Indiana public and private colleges and universities, as well as individuals representing Indiana's businesses and industries.

The CCR Panels were brought together in late March of 2014 to review the draft Indiana Academic Standards that had been reviewed and vetted by the Evaluation Teams in mid-March of 2014. The CCR Panels were tasked with reviewing the standards from 12th grade through kindergarten to ensure that the standards were clear and understandable; aligned across grade levels, showing appropriate progression from grade to grade; and designed to prepare students for college and career readiness. The CCR panels met several times throughout the end of March 2014 and early April 2014 to accomplish this task. At their last meeting, the CCR panel members were asked to sign-off on the draft standards, indicating whether, in their professional opinion, the standards were poised to prepare Hoosier students to be college and career ready.



Indiana Academic Standards

The culmination of the efforts of the Technical Teams, Advisory Teams, Evaluation Teams, and CCR Panels is the college and career ready Indiana Academic Standards that are college and career ready. While many of the standards originated from various sources, including the Common Core State Standards; 2000, 2006, and 2009 Indiana Academic Standards; Massachusetts 2010 Draft English/Language Arts Standards; Virginia Standards of Learning; Nebraska English/Language Arts Standards; the National Council of Teachers of Mathematics; and the National Council of Teachers of English, a number of original standards were also written by members of the Evaluation Teams or CCR Panels.

The process was designed to identify the clearest, most rigorous, and best aligned standards in Mathematics and English/Language Arts to ensure that Hoosier students will graduate meeting the definitions for college and career as defined in Indiana's processes.

What are college and career ready Indiana Academic Standards?

The college and career ready Indiana Academic Standards are designed to help educators, parents, students, and community members understand what students need to know and be able to do at each grade level, and within each content strand, in order to exit high school college and career ready. The Indiana Academic Standards for English/Language Arts demonstrate what students should know and be able to do in the areas of Reading, Writing, Speaking and Listening, and Media Literacy. The Indiana Academic Standards for Mathematics demonstrate what students should know and be able to do in the areas of K-8 Mathematics; Algebra I, II, and Geometry; and higher-level high school Mathematics courses. The Indiana Academic Standards for Content Area Literacy (History/Social Studies and Science/Technical Subjects) indicate ways in which students should be able to incorporate literacy skills into various content areas at the 6-12 grade levels.

What are the college and career ready Indiana Academic Standards NOT?

1). The standards are not curriculum.

While the standards may be used as the basis for curriculum, **the college and career ready Indiana Academic Standards are not a curriculum.** Therefore, identifying the sequence of instruction at each grade—what will be taught and for how long—requires concerted effort and attention at the corporation and school levels. While the standards may have examples embedded, and resource materials may include guidelines and suggestions, the standards do not prescribe any particular curriculum. Curriculum is determined locally by a corporation or school and is a prescribed learning plan toward educational goals that includes curricular tools and instructional materials, including textbooks, that are selected by the corporation/school and adopted through the local school board.

2). The standards are not instructional practices.

While the standards demonstrate what Hoosier students should know and be able to do in order to be prepared for college and careers, the standards are not instructional practices. The educators and subject matter experts that worked on the standards have taken care to ensure that the standards are free from embedded pedagogy and instructional practices. **The standards do not define how teachers should teach.** The standards must be complemented by well-developed, aligned, and appropriate curricular materials, as well as robust and effective instructional best practices.

3). The standards do not necessarily address students who are far below or far above grade-level.

The standards are designed to show what the average Hoosier student should know and be able to do in order to be prepared for college and career. However, some students may be far below grade level or in need of special education, and other students may be far above grade level. The standards do not provide differentiation or intervention methods necessary to support and meet the needs of these students. It is up to the district, school, and educators to determine the best and most effective mechanisms of standards delivery for these students.

4). The standards do not cover all aspects of what is necessary for college and career readiness

While the standards cover what have been identified as essential skills for Hoosier students to be ready for college and careers, the standards are not—and cannot be—an exhaustive list of what students need in order to be ready for life after high school. Students, especially younger students, require a wide range of physical, social, and emotional supports in order to be prepared for the rigors of each educational progression (elementary grades to middle grades; middle grades to high school; and high school to college or career).

II. Acknowledgements

The college and career ready Indiana Academic Standards could not have been developed without the time, dedication, and expertise of Indiana’s K-12 teachers, parents higher education professors, and representatives of Indiana business and industry. Additionally, the members of the public, including parents, community members, policymakers, and educators who took time to provide public comments, whether through the online comment tool or in person at the various public hearings, have played a key role in contributing to the Indiana Academic Standards.

The Indiana Department of Education and Indiana State Board of Education would like to thank Ms. Sujie Shin of the Center on Standards and Assessment Implementation for providing expert facilitation throughout the process and acting in an advisory capacity. The Department and Board would also like to thank the individuals and organizations who provided national expert reviews of the draft standards.

We wish to specially acknowledge the members of the Technical Teams, Advisory Teams, Evaluation Teams, and College and Career Ready Panels who dedicated hundreds of hours to the review, evaluation, synthesis, rewriting, and creation of standards designed to be of the highest quality so that our Hoosier students who are ready for college and careers.

LITERACY IN SCIENCE AND TECHNICAL SUBJECTS

Guiding Principle: *Students develop discipline-specific reading and writing skills. Within the content areas of Science and Technical Subjects, students apply these skills in order to develop a deeper understanding of the content area.*

There are six key areas found in the Literacy in Science and Technical Subjects section for grades 6-12: Key Ideas and Textual Support, Structural Elements and Organization, Synthesis and Connection of Ideas, Writing Genres, the Writing Process, and the Research Process. By demonstrating the skills listed in each section, students should be able to meet the Learning Outcome for Literacy in Science and Technical Subjects.

Note that the standards in this section are not designed for implementation in an English/Language Arts classroom. Instead, they provide guidance to content-area teachers in grades 6-12 (e.g., History/ Social Studies teachers, Science teachers, Career and Technical Education teachers, etc.) on expectations for integrating reading and writing skills into their classrooms.

In Literacy in Science and Technical Subjects, students are expected to do the following:

LEARNING OUTCOMES	LST.1: LEARNING OUTCOME FOR LITERACY IN SCIENCE/TECHNICAL SUBJECTS Read and comprehend science and technical texts independently and proficiently and write effectively for a variety of discipline-specific tasks, purposes, and audiences		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.1.1: Read and comprehend science and technical texts within a range of complexity appropriate for grades 6-8 independently and proficiently by the end of grade 8.	9-10.LST.1.1: Read and comprehend science and technical texts within a range of complexity appropriate for grades 9-10 independently and proficiently by the end of grade 10.	11-12.LST.1.1: Read and comprehend science and technical texts within a range of complexity appropriate for grades 11-CCR independently and proficiently by the end of grade 12.
	6-8.LST.1.2: Write routinely over a variety of time frames for a range of discipline-specific tasks, purposes, and audiences.	9-10.LST.1.2: Write routinely over a variety of time frames for a range of discipline-specific tasks, purposes, and audiences.	11-12.LST.1.2: Write routinely over a variety of time frames for a range of discipline-specific tasks, purposes, and audiences.
KEY IDEAS AND TEXTUAL SUPPORT	LST.2: KEY IDEAS AND TEXTUAL SUPPORT (READING) Extract and construct meaning from science and technical texts using a variety of comprehension skills		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.2.1: Cite specific textual evidence to support analysis of science and technical texts.	9-10.LST.2.1: Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	11-12.LST.2.1: Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
	6-8.LST.2.2: Determine the central ideas or conclusions of a text; provide an accurate, objective summary of the text.	9-10.LST.2.2: Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate, objective summary of the text.	11-12.LST.2.2: Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

	6-8.LST.2.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	9-10.LST.2.3: Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	11-12.LST.2.3: Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
STRUCTURAL ELEMENTS AND ORGANIZATION	LST.3: STRUCTURAL ELEMENTS AND ORGANIZATION (READING) Build understanding of science and technical texts, using knowledge of structural organization and author's purpose and message		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.3.1: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.	9-10.LST.3.1: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.	11-12.LST.3.1: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
	6-8.LST.3.2: Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	9-10.LST.3.2: Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., <i>force</i> , <i>friction</i> , <i>reaction force</i> , <i>energy</i>).	11-12.LST.3.2: Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
	6-8.LST.3.3: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	9-10.LST.3.3: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.	11-12.LST.3.3: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
SYNTHESIS AND CONNECTION OF IDEAS	LST.4: SYNTHESIS AND CONNECTION OF IDEAS (READING) Build understanding of science and technical texts by synthesizing and connecting ideas and evaluating specific claims		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.4.1: Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., <i>in a flowchart, diagram, model, graph, or table</i>).	9-10.LST.4.1: Translate quantitative or technical information expressed in words in a text into visual form (e.g., <i>a table or chart</i>) and translate information expressed visually or mathematically (e.g., <i>in an equation</i>) into words.	11-12.LST.4.1: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., <i>quantitative data, video, multimedia</i>) in order to address a question or solve a problem.
	6-8.LST.4.2: Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	9-10.LST.4.2: Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.	11-12.LST.4.2: Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

	6-8.LST.4.3: Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	9-10.LST.4.3: Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	11-12.LST.4.3: Synthesize information from a range of sources (e.g., <i>texts, experiments, simulations</i>) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
WRITING GENRES	LST.5: WRITING GENRES (WRITING) Write for different purposes and to specific audiences or people		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.5.1: Write arguments focused on discipline-specific content.	9-10.LST.5.1: Write arguments focused on discipline-specific content.	11-12.LST.5.1: Write arguments focused on discipline-specific content.
	6-8.LST.5.2: Write informative texts, including scientific procedures/experiments or technical processes that include precise descriptions and conclusions drawn from data and research.	9-10.LST.5.2: Write informative texts, including scientific procedures/experiments or technical processes that include precise descriptions and conclusions drawn from data and research.	11-12.LST.5.2: Write informative texts, including scientific procedures/experiments or technical processes that include precise descriptions and conclusions drawn from data and research.
THE WRITING PROCESS	LST.6: THE WRITING PROCESS (WRITING) Produce coherent and legible documents by planning, drafting, revising, editing, and collaborating with others		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.	9-10.LST.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.	11-12.LST.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.
	6-8.LST.6.2: Use technology to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	9-10.LST.6.2: Use technology to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.	11-12.LST.6.2: Use technology to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

THE RESEARCH PROCESS	LST.7: THE RESEARCH PROCESS (WRITING)		
	Build knowledge about the research process and the topic under study by conducting short or more sustained research		
	GRADES 6-8	GRADES 9-10	GRADES 11-12
	6-8.LST.7.1: Conduct short research assignments and tasks to answer a question (including a self-generated question), or test a hypothesis, drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	9-10.LST.7.1: Conduct short as well as more sustained research assignments and tasks to answer a question (including a self-generated question), test a hypothesis, or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	11-12.LST.7.1: Conduct short as well as more sustained research assignments and tasks to answer a question (including a self-generated question), test a hypothesis, or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
	6-8.LST.7.2: Gather relevant information from multiple sources, using search terms effectively; annotate sources; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation (e.g., <i>APA or CSE</i>).	9-10.LST.7.2: Gather relevant information from multiple authoritative sources, using advanced searches effectively; annotate sources; assess the usefulness of each source in answering the research question; synthesize and integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (e.g., <i>APA or CSE</i>).	11-12.LST.7.2: Gather relevant information from multiple types of authoritative sources, using advanced searches effectively; annotate sources; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; synthesize and integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation (e.g., <i>APA or CSE</i>).
	6-8.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.	9-10.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.	11-12.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.

Attachment 9

Provide, in Attachment 9, the school's exit standards for graduating students for each division of the school as applicable (elementary, middle and/or high school). Exit standards should clearly set forth what students in the last grade in each division will know and be able to do.

A student will be promoted only on the basis of academic achievement or demonstrated proficiency in the subject matter of the course or grade level, the recommendation of the student's teacher, the score received on any criterion-referenced or state-mandated assessment, and any other necessary academic information as determined by the headmaster.

Mastery shall be determined as follows:

- Course assignments and unit evaluation shall be given to determine student grades in a subject. An average of 70 or higher shall be considered a passing grade.
- Mastery of the skills necessary for success at the next level shall be validated by assessments that may either be incorporated into unit, nine-week, and final exams, or may be administered separately. Mastery of at least 70 percent of the objectives shall be required.

Grades K – 2. In grades K-2, promotion to the next grade level shall be based on successful performance as documented on the report cards, meeting the Indiana Standards for Language Arts and Mathematics, and meeting the state minimum attendance requirements.

Grades 3 – 5. In grades 3-5, promotion to the next grade level shall be based on an overall average of 70 on a scale of 100 based on the Indiana Standards and the Core Knowledge Sequence for all applicable subject areas. In addition to an overall grade of 70 or above, a student shall have a minimum grade of 70 in each of the following areas: English Language Arts, Mathematics, Science, and History. Promotion to the next grade level shall also require meeting the state minimum attendance requirements.

Grades 6 – 8. To be promoted from grade 6 to grade 7, from grade 7 to grade 8, and from grade 8 to grade 9, students must meet all of the following criteria:

- Earn a yearly average of 70 or above in each of the subjects of English Language Arts, Mathematics, Science and History.
- Earn an overall average of 70 when all subjects (core and electives) taken are averaged together.
- Meet the 90 percent state-mandated requirement for attendance.

Grade-level advancement for students in grades 9-12 shall be earned by course credits. In order to advance from grade 9 to grade 10, a student must have earned a minimum of twelve (12) credits. A minimum of twenty-four (24) credits is required to reach grade 11, and at least thirty-six (36) credits must be earned for a student to be assigned to grade 12. To graduate, students must complete forty-eight (48) credits in accordance with specific course requirements. Students must also complete a senior thesis as a capstone to their education at Seven Oaks Classical School. Although students may meet the credit requirements for graduation prior to the last semester of their senior year, they are still required to take a full course load of seven periods each day. Students at Seven Oaks will not be eligible for early release.

Graduation credits and specific course requirements are as follows:

High School Graduation Requirements

English Core courses: Classical Literature (2 credits), British Literature (2 credits), American Literature (2 credits), Modern Literature (2 credits)	8 credits
Math Students must successfully complete Geometry (2 credits) and Algebra II (2 credits). Additional classes offered include but are not limited to Pre-Calculus (2 credits), Calculus (2 credits), and Probabilities/Statistics (2 credits).	6 credits
Science Students must successfully complete Biology (2 credits) and Chemistry (2 credits).). Additional classes offered include but are not limited to Physics (2 credits), Biology II (2 credits), Chemistry II (2 credits), and Physics II (2 credits).	6 credits
History Core courses: Western Civ I (2 credits), Western Civ II (2 credits), American History to 1900 (2 credits), Modern European History (2 credits), American History 20 th Century (1 credit)	9 credits
Government Core course: American Government (1 credit)	1 credit
Economics Core course: Economics (1 credit)	1 credit
Foreign Language Students must successfully complete four credits in Latin in the freshman and sophomore years. The remaining credits can be fulfilled by further study in Latin or by studying a modern foreign language.	6 credits
Composition Core course: Composition (1 credit). Depending upon the student's readiness for the standard course, some students may be required to take as a pre-requisite a one-credit basic composition course.	1 credit

Philosophy Core course: Moral Philosophy (1 credit)	1 credit
Physical Education/Health and Wellness Physical Education (2 credits), Health and Wellness (1 credit)	3 credits
Electives Electives offered include music, art, and others.	6 credits
Senior Thesis	0 Credits
Total	48 credits

- All students are required to complete the core courses.
- At the discretion of the Headmaster, a student may be required to complete remedial courses in order to graduate.
- The Headmaster has the authority to waive any graduation requirement except those meeting the state requirements.
- Once enrolled full-time, a student will not receive credit from any other institution without the prior approval of the Headmaster.
- While some courses may be completed during middle school (such as Algebra I), graduation credits are only earned in high school.

Attachment 10

Provide, in Attachment 10, the school's proposed calendar for the first year of operation, as well as the weekly schedule of classes. Provide an overview of academic and non-academic programs, as well as the total number of instructional days in an academic year. Note the length of the school day, including start and dismissal times. Detail the number of instructional hours/minutes in the day for core subjects such as language arts, mathematics, science, and social studies. NOTE: Limit attachment to ten (10) pages.

Elementary

School starts at 8:00 a.m. for all students in grades Kindergarten through sixth (K-6) and ends at 3:30p.m.

For grades K-6, the number of hours in each day will be seven and a half (7.5) hours per day with three hundred and forty (340) instructional minutes. The number of school days per week will be five (5). The amount of instructional time will be 1,700 instructional hours per week.

Note: Instructional hours do not include recess, passing time, and lunch.

STUDENT DAYS

1st Quarter ~ 43 days

2nd quarter ~ 41 days

3rd quarter ~ 48 days

4th quarter ~ 48 days

First semester ~ 84 days

Second semester ~ 96 days Total ~ 180 days

Below is a sample schedule for a first grade student:

8:00-8:20am	Students arrive at school and participate in a flag ceremony and recitation in their classroom.
8:20-8:50am	Language Arts: In small reading groups, the students take turns reading a book from the Little Bear series.
8:50-9:30am	Phonics: Students learn new digraphs, practice spelling words, and learn a new letter.
9:30-9:50am	Language Arts: Students enjoy listening to a read-aloud book such as <i>Make Way for Ducklings</i> .
9:50-10:10am	Students play outside or in the gym, as the weather dictates.
10:10-11am	Mathematics: Students learn all of the number facts for subtracting from seven.
11-11:10am	Break
11:10-11:50am	Science: Students learn about the parts of plants and how plants grow.
11:50am-12:30pm	Lunch and recess.

12:30-1pm	Students hear an Aesop's Fable and participate in Socratic discussion.
1-1:10pm	Break and walk to specials.
1:10-1:50pm	Music: Students learn about the major categories of musical instruments (percussion, wind, stringed) that were represented in Ancient Egypt.*
1:50-2:30pm	Latin: Students learn first declension noun endings through song and games.*
2:30-2:50pm	Students play outside or in the gym, as the weather dictates.
2:50-3:30pm	History: Students learn about ancient Egypt and locate Egypt and the Nile River on a map.

*on alternating days students will participate in art and physical education.

Middle School

School starts at 8:00 a.m. for all students in grades seven through eight (7-8) and ends at 3:30p.m.

For grades 7-8, the number of instructional hours will be seven (7) fifty-five (55) minute class periods per day with three hundred eighty-five (385) instructional minutes. The number of school days per week will be five (5). The amount of instructional time will be 1,925 instructional hours per week.

Note: Instructional hours do not include passing time and lunch.

What a seventh grader's daily schedule may look like:

8:00-8:55am	English; Poetry and the elements of poetry.
9:00-9:55am	History and Geography; World War I: "The Great War" 1914-1918.
10:00-10:55am	Music; Classical Music: Romantic Composers and Works.
11:00-11:55am	Science; Atomic Structure.
12:00-12:30pm	Lunch and Leisure
12:35-1:30pm	Latin; Studying the five noun declensions, adjectives, present system of verbs.
1:35-2:30pm	Visual Arts; Art History: Impressionism.
2:35-3:30pm	Mathematics; Pre-Algebra: Properties of the Real Numbers
3:30pm	Dismissal

2016-2017 SOCS Calendar

July 2016						
Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August 2016						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September 2016						
Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October 2016						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November 2016						
Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December 2016						
Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

July	
4	Independence day

27-29 Hillsdale College Staff Training

August	
1--5	Hillsdale College Staff Training
10--12	Teacher Work Days
15	First Day of School

September	
5	Labor Day

October	
10	Columbus Day
14	End of 1st Quarter

November	
11	Veterans Day
23-25	Thanksgiving Break
28	Teacher Professional Development

December	
16	Last Day for Students/End of 2nd Quarter
19	Begin Winter Break

January 2017						
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February 2017						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March 2017						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April 2017						
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

May 2017						
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June 2017						
Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

January	
2	First Day of School
16	Martin Luther King Jr. Day

February	
12	Lincoln's Birthday
15	Washington's Birthday (or snow day)

March	
10	End of 3rd Quarter
13-17	Spring Break

April	
-------	--

May	
24	Last Day for Students/End of 4th Quarter
25	Teacher Work Day

June	
	First and Last Days of School
	Teacher Professional Days
	No School for Students
	End of Grading Period
	180 Instructional Days/193 Teacher Professional Days

TIMES	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6		Literature	History	Math	Science	Sci/Math	Latin/Comp	Latin/Comp	Misc	P.E.
7:45-8:00	Arrival							7:45-8:00	Homeroom	Homeroom	Homeroom	Homeroom	Homeroom	Homeroom	Homeroom	Homeroom	
8:00-8:10	Recitation	Recitation	Recitation	Recitation	Recitation	Recitation	Recitation	1st Period	7a	7b	8a Alg I					8b	
8:10-8:20								8:00-8:50									
8:20-8:30	Phonics/ Spelling	Reading	Reading	Literature	Literature	Spelling/ Grammar/ Handwriting	Spelling/ Grammar/ Handwriting										
8:30-8:40																	
8:40-8:50	Literature	Phonics/ Spelling/ Grammar/ Handwriting	Phonics/ Spelling/ Grammar/ Handwriting	Spelling/ Grammar/ Handwriting	Spelling/ Grammar/ Handwriting	Sec. 5a For. Lang. & P.E. Sec. 5b Music & Art	Sec. 6a For. Lang. Sec. 6b Music & Art	2nd Period			7b		7a Math	6a Latin A	8b Latin C	8a	5 or 6
8:50-9:00								8:55-9:45									
9:00-9:10	Sec. Ka For. Lang. & P.E. Sec. Kb Music & Art	Literature	Literature	Literature	Literature												
9:10-9:20																	
9:20-9:30	Recess	Recess	Recess	5 min break	5 min break	5 min break	5 min break	3rd Period	8a			7b	6b Math (ability grouped)	7a Lat B			
9:30-9:40								9:50-10:40									
9:40-9:50	Math	Math	Math	Math	Math	Math	Math										
9:50-10:00																	
10:00-10:10								4th Period	8b	Lunch		7a	Lunch	6b Latin A	8a Latin C	7b	5 or (elem. teachers lead)
10:10-10:20								10:45-11:30									
10:20-10:30	Sec. Ka Music & Art Sec. Kb For. Lang.	Science	Science	Latin	Latin	Latin	Latin										
10:30-10:40																	
10:40-10:50	Lunch	Lunch	Lunch	Science	Science	Sec. 5a Music & Art Sec. 5b For. Lang. & P.E.	Sec. 6a Music & Art Sec. 6b For. Lang.	5th Period	Lunch	7a				Lunch	Lunch	Lunch	
10:50-11:00								11:35-12:20									
11:00-11:10	Recess	Recess	Recess	Lunch	Lunch	Lunch	Lunch	6th Period									
11:10-11:20								12:25-1:20									
11:20-11:30	Rest Period	Literature	Literature	Recess	Recess	Recess	Recess		8a	Lunch	Lunch	Lunch	8b Sci	7b Latin B			
11:30-11:40																	
11:40-11:50	Science	5 min break	5 min break	Sec. 3a For. Lang. & P.E. Sec. 3b Music & Art	Sec. 4a For. Lang. & P.E. Sec. 4b Music & Art	Literature	Literature										
11:50-12:00																	
12:00-12:10	Literature	Sec. 1a For. Lang. & P.E. Sec. 1b Music & Art	Sec. 2a For. Lang. & P.E. Sec. 2b Music & Art	5 min break	5 min break			7th Period	7b	8b		8a				7a	1 or 2
12:10-12:20								1:25:2:20									
12:20-12:30	Recess	Sec. 1a Music & Art Sec. 1b For. Lang. & P.E.	Sec. 2a Music & Art Sec. 2b For. Lang. & P.E.	History/ Geography	History/ Geography	Science	Science										
12:30-12:40																	
12:40-12:50	History/ Geography	Recess	Recess	Recess	Recess			8th Period	Note: Study Hall from 2:25-2:40 for Choir and PE students							Band (Choir at 2:40 Elem. Music Teacher)	3 or 4
12:50-1:00								2:25-3:10									
1:00-1:10	Review Games	History/Geography	History/Geography	Sec. 3a Music & Art Sec. 3b For. Lang. & P.E.	Sec. 4a Music & Art Sec. 4b For. Lang. & P.E.	History/ Geography	History/ Geography										
1:10-1:20																	
1:20-1:30								Study Hall									7-8 P.E. Elective at 2:40
1:30-1:40								3:15-3:45									
1:40-1:50																	
1:50-2:00																	
2:00-2:10																	
2:10-2:20																	
2:20-2:30																	
2:30-2:40																	
2:40-2:50																	
2:50-3:00																	
3:00-3:10																	
3:10-3:20																	
3:20-3:30																	
3:30-3:40																	
3:40-3:50																	

Notes:

Week "A" each grade's section "a" has Foreign Language on MWF and P.E. on TTh
Week "A" each grade's section "b" has P.E. on MWF and Foreign Language on TTh
Week "B" each grade's section "a" has P.E. on MWF and Foreign Language on TTh
Week "B" each grade's section "b" has Foreign Language on MWF and P.E. on TTh
Week "A" each grade's section "a" has Music on MWF and Art on TTh
Week "B" each grade's section "b" has Art on MWF and Music on TTh
Week "A" each grade's section "a" has Art on MWF and Music on TTh
Week "B" each grade's section "b" has Music on MWF and Art on TTh
Kindergarten Teacher teaches K music and art

Attachment 11

Provide, as Attachment 11, the school's Enrollment Policy, which should include the following:

- a. Any admission requirements, including an explanation of the purpose of any pre-admission activities for students or parents.**
- b. Tentative dates for the application period, including enrollment deadlines and procedures, and an explanation of how the school will receive and process Intent to Enroll forms.**
- c. Tentative lottery dates and procedures.**
- d. Policies and procedures for student waiting lists, withdrawals, re-enrollment, and transfers.**

a. Seven Oaks Classical School intends to enroll 54 students each year in each grade level. Research and experience has shown that student body populations thrive within certain numerical boundaries. Seven Oaks has intentionally designed the school to operate on a scale designed to create effective learning opportunities for each student. This principle is in effect for the school as well as classrooms. Seven Oaks admits students of any race, color, and national and ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of race, color, or national and ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs.

b. Tentative dates for the application period will be January 1-29, 2016. Intent-to-Enroll forms will be available on Seven Oaks' website, along with a description of the enrollment procedure. The forms will also be available for pick up in Seven Oaks' office. Intent-to-Enroll forms will be accepted in person or via U.S. Postal Service. Applicants will be put on an enrollment list in the order the Intent-to-Enroll forms were received. If the number of eligible applicants does not exceed the number of vacancies for the building, then all qualified applicants who have timely applied will be offered admission. If the number of applicants exceeds the number of vacant seats, Seven Oaks will hold a lottery to determine who will fill those spots.

c. Tentative lottery date will be February 13, 2016. This is approximately two weeks after the closing of the application period. If there are more eligible applicants than available spaces in the building, then a lottery will be conducted by random drawing in a public meeting at a time set by the administration each year. Seven Oaks will use a software program, to be determined, that has the component to facilitate the application process and lottery. A name (or number assigned to a name) will be drawn for each vacancy that exists, and each applicant whose name is drawn will be offered admission. Notification will be made by telephone, e-mail, or U.S. Postal Service. Failure of an applicant to respond within 48 hours of the date of the telephone call or e-mail, or within three (3) business days of a post-marked letter, will forfeit his/her position in the application process. Parents or guardians notified by mail will be instructed to call the school immediately upon receipt of the notice in order to preserve their child's position in the lottery. The remaining names will then be drawn and placed on a waiting list in the order in which they were drawn.

d. The remaining names in the lottery will be placed on a waiting list in the order in which they were drawn. If a vacancy arises before the commencement of the school year, the individual on the waiting list with the lowest number assignment will be offered admission and then removed from the waiting list. If an application is received after the application period has passed, the applicant's name will be added to the waiting list behind the names of the applicants who timely applied. Students are able to withdraw from Seven Oaks at any time during the school year. If a student would choose to re-enroll during the

school year, they will be put on the wait list, unless there is an open seat in their grade level. Currently-enrolled students are not required to re-enroll each year. Seven Oaks will accept transfer students; they must follow the enrollment policy set forth by the school.

Exceptions: Seven Oaks will exempt from the lottery students already admitted and siblings of students already admitted if there is a space available.

Attachment 12

Provide as Attachment 12 the school's discipline policy, which should include a summary of the following:

- a. Practices the school will use to promote good discipline in the school, including both penalties for infractions and incentives for positive behavior.**
- b. A preliminary list of the offenses for which students in the school must (where non-discretionary) and may (where discretionary) be suspended or expelled, respectively.**
- c. An explanation of how the school will take into account the rights of students with disabilities in disciplinary actions and proceedings.**
- d. A description of the appeal process that the school will employ for students facing expulsion.**
- e. How parents will be informed of the school's discipline policy.**

A. Practices to Promote Good Discipline

Part of our vision for educating students at Seven Oaks Classical School is to unite students, parents, guardians, educators, through an educational environment that rewards creativity and builds community ties. Strong academic standards, positive character education and community partnerships will encourage students to become independent and responsible thinkers. Seven Oaks Classical School aspires to socioeconomic, racial and ethnic diversity in its student population and will incorporate the many attendant cultures into its curriculum and daily life.

One of Seven Oaks Classical School board and faculty's goals is to maintain an environment conducive to learning and to ensure the safety of staff and students. When classrooms are orderly, teachers are able to teach, and students are able to learn. All students, including those with disabilities are held accountable for actions that impede instruction and other students' ability to learn. Seven Oaks Classical School is aware that disruptions in the classroom interrupt lessons for all students and that the disruptive students lose even more learning time. It is imperative to have order, cooperation, and respect in the classroom in order for us to live out the mission of Seven Oaks Classical School.

Through the decorum of the classrooms and halls, the reading of great works in literature and history, and the invitation to polite discussion about heroes and heroines, students analyze, grapple with, and contemplate important moral and intellectual questions. They learn to evaluate situations with sound judgment, recognize good behavior, and make personal decisions that embody and emulate virtue. When teachers model excellence and have high expectations of students' behavior, students will rise to the occasion. Teachers will award students that exemplify good practices in character and citizenship with a special pin to wear on their uniform.

Education provides a means for human development and a means for remediation and adjustment. In situations involving misconduct, the Headmaster and staff will take reasonable measures to modify any unacceptable student behavior prior to suspending the student unless it is a situation where safety is in jeopardy.

The administration of Seven Oaks Classical School will keep in mind the need for age appropriate consequences when determining consequences for conduct violations. The Headmaster will have the ability to take degree of severity, frequency of offense, situation, age, and decision making capacity of a student into account in determining sanctions.

To function properly, education must provide an equal learning opportunity for all students by recognizing, valuing, and addressing the individual needs of every student. In addition to the regular

curriculum, principles and practices of character and good citizenship will be taught and modeled by the school staff. This includes an appreciation for the rights of others. Any conduct that interferes with—or may reasonably be considered to interfere with—a “school purpose” (as defined in IC 20-33-8-4); an “educational function” (as defined in IC 20-33-8-2); or the health, safety or well-being, or rights of other students is prohibited. Infractions for aforementioned conduct are outlined in the school’s discipline policy.

B. Preliminary List of the Offenses for Which Students Must and May be Suspended or Expelled

1. General Overview

A student may be suspended or expelled, subject to certain procedural requirements, for:

1. Student misconduct;
2. Substantial disobedience; or
3. Unlawful activity on or off “school grounds” (as defined in IC 20-33-8-5) if:
 - a. the unlawful activity may reasonably be considered to be an interference with school purposes or an educational function; or
 - b. the student’s removal is necessary to restore order or protect persons on school property; including an unlawful activity during weekends, holidays, other school breaks, and the summer period when a student may not be attending classes or other school functions.

2. Preliminary List of Offenses

Level I: Major Offenses

Examples (not inclusive list)

1. Presence in an unauthorized area
2. Computer system violations
3. Disrespect of school staff and persons in authority
4. Failure to complete assigned homework
5. Failure to comply with directives of school staff (insubordination)
6. Failure to comply with school dress code policies
7. Failure to leave campus within 30 minutes of school dismissal (unless involved in an activity under the supervision of school staff)
8. Failure to report known hazing, harassment, or bullying of students
9. Hazing, harassment, or bullying of students (verbal)
10. Inappropriate behavior (not abusive, threatening, violent)
11. Inappropriate public display of affection
12. Inappropriate physical contact not defined as a Level II, Level III, or Level IV offense
13. Insensitivity to others
14. Parking infraction
15. Persistent tardiness
16. Possessing any electronic devices without permission
17. Possessing matches, lighters, etc.
18. Skipping class, detention, or tutorial sessions
19. Using a skateboard, scooter, and/or roller blades while on campus
20. Using any telecommunications or other electronic devices, without permission, during school hours
21. Vehicle operation infraction

Appropriate Disciplinary Actions:

1. Behavioral contracts or individually developed behavior management plans
2. Classroom management techniques

3. Community service
4. Counseling by teachers or Headmaster
5. Demerits
6. Detention
7. Fee for the return of telecommunications device that has been confiscated
8. In-school suspension up to 10 days
9. Parent contracts to restrict home privileges
10. Parent observations in student's classes
11. Parent conference with teacher or Headmaster
12. Peer mediation
13. Placement in another appropriate classroom
14. Restitution/restoration, if applicable
15. Saturday school
16. Seating changes within the classroom
17. Temporary or permanent confiscation of items that are prohibited and/or disrupt the educational process
18. Withdrawal of privileges, such as parking privileges, participation in extracurricular activities, eligibility for seeking and holding honorary offices, membership in school-recognized clubs or organizations, etc.

NOTE: Disciplinary actions may be used individually or in combination for any offense.

NOTE: No employee or agent of the school shall cause corporal punishment to be inflicted upon a student to reform unacceptable conduct or as a consequence for unacceptable conduct.

Level II: Discretionary Suspension

Examples (not inclusive list)

1. Academic dishonesty
2. Being a member of, pledging to become a member of, joining, or soliciting another person to join, or pledge to become a member of a school fraternity, sorority, secret society, or gang
3. "Bullying" (as defined in IC 20-33-8-0.2) (verbal or written)
4. Bypassing of internet blocks on school computers or networks to enter unapproved sites
5. Cyberbullying (i.e., bullying through the use of data or computer software that is accessed through a: (a) computer, (b) computer system, or (c) computer network of a school corporation)
6. Engaging in conduct that constitutes sexual harassment (verbal or written)
7. Failure to comply with conditions of in-school suspension placement
8. Failure to comply with school medication policies
9. Falsification of school records
10. Fighting/mutual combat
11. Gambling
12. Gang activity (nonviolent)
13. Interference with school activities or discipline
14. Leaving classroom, school property, or school-sponsored events without permission
15. Making an obscene gesture
16. Persistent Level I offenses (two Level I offenses within a period of 45 rolling school days)

17. Possessing a look-alike weapon, including, without limitation, BB guns, CO2 guns, air pistols or rifles, pellet guns, or any other device designed to appear to be a firearm or other weapon
18. Possessing “ammunition” (as defined in IC 35-47-1-2.5)
19. Possessing drug paraphernalia
20. Possessing or selling “look-alike” drugs
21. Possessing or using fireworks or other explosive devices
22. Possessing or using tobacco
23. Possessing prescription drugs, giving a prescription drug to another student, or possessing or being under the influence of another person’s prescription drug
24. Possessing, viewing, or distributing pictures, text messages, e-mails, or other material of a sexual nature in any media format
25. Refusing to allow student search
26. Theft
27. Threats (nonviolent/verbal or written)
28. Unruly, disruptive, or abusive behavior that interferes with the teacher’s ability to communicate effectively with the students in the class
29. Use of profanity or vulgar/offensive language (verbal or written)
30. Using the Internet or other electronic communications to threaten students or employees, or cause disruption to the school program
31. Willful destruction of school or personal property and/or vandalism

Appropriate Disciplinary Actions

1. Level I disciplinary techniques
2. Disciplinary actions authorized in IC 20-33-8-25
3. Suspension for a period of time consistent with IC 20-33-8-18

NOTE: Disciplinary actions may be used individually or in combination for any offense.

Level III: Mandatory Suspension and Discretionary Expulsion

Examples (not inclusive list)

1. “Bullying” (as defined in IC 20-33-8-0.2) (physical)
2. Burglary of a motor vehicle on campus
3. Deliberate destruction of or tampering with school computer data or networks
4. Engaging in conduct that constitutes sexual harassment (physical)
5. Gang activity (violent)
6. Inappropriate exposure of body parts
7. Inappropriate sexual conduct
8. Persistent Level I offenses (four Level I offenses within a period of 45 rolling school days)
9. Persistent Level II offenses (two Level II offenses within a period of 45 rolling school days)
10. Possessing any object used in a way that threatens or inflicts bodily injury to another person
11. Possessing, selling, distributing, or being under the influence of a drugs
12. Targeting someone for bodily harm
13. Threats (violent/verbal or written)

Appropriate Disciplinary Actions

1. Disciplinary actions authorized in IC 20-33-8-25
2. Suspension for a period of time consistent with IC 20-33-8-18
3. Expulsion for a period of time consistent with IC 20-33-8-20

Level IV: Mandatory Expulsion

Examples (not inclusive list)

1. Bringing a “firearm” (as defined in IC 35-47-1-5) to school or on school property
2. Possessing a “firearm” (as defined in IC 35-47-1-5) on school property
3. Bringing a “destructive device” (as defined in IC 35-47.5-2-4) to school or on school property
4. Possessing a “destructive device” (as defined in IC 35-47.5-2-4) on school property
5. Bringing a “deadly weapon” (as defined in IC 35-41-1-8) to school or on school property
6. Possessing a “deadly weapon” (as defined in IC 35-41-1-8) on school property

Appropriate Disciplinary Actions

1. Expulsion for a period of time consistent with IC 20-33-8-16

C. Rights of Students with Disabilities in Disciplinary Action

There are five themes that guide our discipline approach with respect to student with disabilities:

- All children, including children with disabilities, deserve safe, well-disciplined schools and orderly learning environments.
- Teachers and school administrators should have the tools they need to assist them in preventing misconduct and discipline problems and to address these problems, if they arise.
- There must be a balanced approach to the issue of discipline of children with disabilities that reflects the need for orderly and safe schools and the need to protect the rights of children with disabilities to a free appropriate public education.
- Appropriately developed IEPs with well-developed behavior intervention strategies decrease school discipline problems.
- School personnel may consider any unique circumstances on a case-by-case basis when determining whether a change in placement is appropriate for a student with a disability who violates a code of student conduct.

Also threaded throughout our practice is the governing principle that students with disabilities are entitled to the same constitutional rights as students without disabilities. These fundamental due process rights include, in part, meaningful notice of an alleged violation of law or school division’s code of conduct, the opportunity for the student to give the student’s account of the incident, and the opportunity to appeal the disciplinary action, which is imposed on the student. While students with disabilities also have additional protections under the IDEA, the school’s personnel must not overlook or dismiss the student’s fundamental due process rights in any administrative disciplinary action taken with the student.

Disciplinary action against a student who is a child with a disability (as defined in IC 20-35-1-2) is subject to the:

1. Procedural requirements of 20 U.S.C. 1415; and
2. Rules adopted by the state board (as provided in 511 IAC 7-44).

D. Appeal Process for Students Facing Expulsion

The School’s Headmaster may conduct an expulsion meeting or appoint one (1) of the following to conduct an expulsion meeting:

1. Legal counsel.
2. A member of the administrative staff if the member:
 - a. has not expelled the student during the current school year; and
 - b. was not involved in the events giving rise to the expulsion.

The Headmaster (or designee) may issue subpoenas, compel the attendance of witnesses, and administer oaths to persons giving testimony at an expulsion meeting.

An expulsion may take place only after the student and the student's parent are given notice of their right to appear at an expulsion meeting with the superintendent (or designee). Notice of the right to appear at an expulsion meeting must:

1. Be made by certified mail or by personal delivery;
2. Contain the reasons for the expulsion; and
3. Contain the procedure for requesting an expulsion meeting.

The individual conducting an expulsion meeting:

1. Shall make a written summary of the evidence heard at the expulsion meeting;
2. May take action that the individual finds appropriate; and
3. Must give notice of the action taken under subdivision 2 to the student and the student's parent.

If the student or the student's parent, no later than ten (10) days after receipt of a notice of action taken above, makes a written appeal to the governing body, the governing body:

1. Shall hold a meeting to consider:
 - a. the written summary of evidence prepared by the Superintendent (or designee); and
 - b. the arguments of the Headmaster and the student or the student's parent; unless the governing body has voted not to hear appeals of expulsion actions; and
2. May take action that the governing body finds appropriate.

The decision of the governing body may be appealed only by judicial review (IC 20-33-8-21). A student or a student's parent who fails to request and appear at an expulsion meeting after receipt of notice of the right to appear at an expulsion meeting forfeits all rights administratively to contest and appeal the expulsion. For purposes of this section, notice of the right to appear at an expulsion meeting or notice of the action taken at an expulsion meeting is effectively given at the time when the request or notice is delivered personally or sent by certified mail to a student and the student's parent.

The governing body may vote to not hear appeals of expulsion actions. If the governing body votes to not hear appeals, subsequent to the date on which the vote is taken, a student or parent may appeal only by judicial review (IC 20-33-8-21).

E. Parents Informed of the School's Discipline Policy

The School's discipline policy will be included in the School's Parent/Student Handbook. In order to comply with the publicity requirements of IC 20-33-8-12, the Parent/Student Handbook will be made available to students and parents in print and electronic media.

Attachment 13

Provide, as Attachment 13, evidence of demand from the community, evidence of community engagement, and evidence of support from community partners. This attachment, which is required, may include documentation of public forums held, meetings with community leaders (e.g., mayors, council members, neighborhood leaders) letters of intent and/or memoranda of understanding, and should specify the resources to be committed or contributed from the partner, as applicable. In the narrative or in Attachment 13, please also include a detailed plan to accomplish successful community engagement during the school's pre-opening period and leading into the school's first year.

A. Evidence of Demand

See below for our Change.org petition and comments. Letters of intent have also been collected, but have not been submitted here in accordance with the Family Educational Rights and Privacy Act (FERPA). Letters of intent are available upon request.

B. Evidence of Community Engagement

As Seven Oaks has been introduced to the Bloomington Community, the School has launched a professional, systematic, research-based, and dynamic public awareness campaign. A blend of marketing, advertising, public relations, and community engagement has been implemented to generate awareness of, and interest in, the School. Empirical evidence from Hillsdale College affiliated schools has proven that this method of recruitment has proven successful to garnishing above and beyond the targeted enrollment. The responsibilities for this process are split between the School's marketing committee and School leadership on the ground in the community. The public awareness campaign involves the use of a variety of high quality, well designed, publicity materials. These resources include, but are not limited to:

1. Brochures and stickers
2. Website (www.SevenOaksClassical.org)
3. Promotional display and banners
4. Newspaper advertisement
5. Press releases
6. Flyers
7. Postcards
8. Facebook advertisements
9. Change.org petition

Please see below for samples of publicity materials that have been utilized in the promotion of Seven Oaks Classical School.

Up until this point, Seven Oaks has held a number of public awareness meetings and informational sessions, a fundraising event (see postcard advertisement), participation and marketing through the City of Bloomington annual Independence Day Parade. Through all of these events the aforementioned publicity materials were distributed and representatives were on hand to present material and to answer questions of interested parties.

C. Community Partnerships

Seven Oaks will pursue partnerships with organizations in the greater Bloomington community who support the School's mission and goals. To this end, Seven Oaks has started building relationships by

meeting with or receiving support from the following individuals and community organizations, either as donors to our auction, receiving verbal support, or written support for our efforts:

1. City of Bloomington Volunteer Network
2. Local congressmen & representatives i.e. Peggy Mayfield, Matt Ubelhor, Matt Pierce, Todd Young, staff member from the office of Sen. Dan Coats.
3. Girls, Inc.
4. Boys and Girls Club
5. Boy Scouts of America
6. Girl Scouts of Central Indiana
7. Head Start
8. City of Bloomington Parks & Recreation (Pig Roast Location)
9. Stafford Music Academy (Letter of Support)
10. Bloomingfoods (Donation)
11. Brown County Antique Mall (Donation)
12. Designscape (Donation)
13. Wonderlab (Donation)
14. Indianapolis Children's Museum (Donation)
15. One World Enterprises (Donation)
16. The Butcher Block (Donation)
17. The Game Preserve (Donation)
18. Malibu Grill (Donation)
19. Osmon Chiropractic (Donation)
20. Memoria Press (Donation)
21. Peace Hill Press (Donation)
22. Institute for Quality Education
23. Sherwood Oaks Christian Church (facility usage)
24. Indianapolis Indians Baseball (Donation)
25. Holiday World Splashin' Safari (Donation)
26. The Venue (Donation)
27. Brewster's Ice Cream (Donation)
28. Spaah! (Donation)
29. Comedy Sportz (Donation)
30. Cardinal Stage Company (Donation)
31. Bloomington Bagel (Donation)
32. Lazerlite (Donation)
33. Classical Academic Press (Donation)
34. Memoria Press (Donation)
35. Russell Road Tennis Club (Donation)
36. Half-Price Book (Donation)
37. Indiana Cosmetology Academy (Donation)
38. The Book Corner (Donation)
39. Hallmark (Donation)
40. Chick-Fil-A (Donation)
41. Indianapolis Colts (Donation)
42. Tailored Fit (Donation)
43. Calvary Baptist Church (facility use)
44. Rice Quality Meats (Discounted Products)
45. Buffa Louie's (Donation)



To Whom It May Concern:

We are pleased to support Seven Oaks Classical School, a proposed charter school to be located in Bloomington Indiana, and its mission to educate the youth of Bloomington, and the surrounding areas.

A classical liberal arts education is currently not available for Monroe and surrounding county families. Seven Oaks Classical School will provide a rigorous classical education in the liberal arts with training in moral character and civic virtue. As a small business in the Bloomington community that is in favor of creating well-rounded young people, Stafford Music Academy offers its support of Seven Oaks Classical School and its mission.

Sincerely,

A handwritten signature in black ink that reads 'Jessica Harris'. The script is cursive and fluid, with the first letters of each word being capitalized and prominent.

Jessica Harris
Owner, Stafford Music Academy

**Girls Incorporated®
Of Monroe County**

**1108 W. 8th St.
Bloomington, IN 47404
Tel: 812-336-7313
Fax: 812-336-7317
www.girlsinc-monroe.org**

July 24, 2014



Lindsey,

Inspiring all girls

I appreciate the time you gave to come and meet with me. I enjoyed getting to show you Girls Inc. of Monroe County facilities and talking about the wonderful programs we offer girls in our community. Thank you for your interest in wanting to discuss a possible collaboration in the future with Seven Oaks Classical School and Girls Inc. I look forward to future discussions on how we can work together. I wish you the very best in your endeavors on bringing this school to Monroe County.

Sincerely,

A handwritten signature in black ink that reads "Kristi McCann". The signature is written in a cursive, flowing style.

Kristi McCann
Executive Director



July 23, 2014

Dear Lindsey and Matt,

Thank you both for coming to the Boys & Girls Clubs of Bloomington to meet with me, see our facility, learn about our after school programs and transportation system.

I look forward to meeting with you again and chatting more!

Sincerely,

Shawna Meyer-Niederman

Director of Operations

Boys & Girls Clubs of Bloomington

Office Hours: Monday-Thursday 9:00-4:00, with time sensitive needs please call the office.

[812-332-5311](tel:812-332-5311)

[812-332-9750](tel:812-332-9750) (fax)

www.bgcbloomington.org



HOOSIER TRAILS COUNCIL

BOY SCOUTS OF AMERICA®

Developing Leaders of Tomorrow, Through Adventures Today!

8/1/2014

Ms. Weaver,

It was my pleasure to meet with you Saturday to discuss partnering Seven Oaks Charter School and the Boy Scouts of America. I hope you found the information I left with you to be informative and not complicated. Starting a new Cub Scout Pack and/or a Boy Scout Troop is not difficult and the District will assist you in furthering your educational aims and objectives as well as offering the three objectives of our organization: character development, citizenship, fitness, in an outdoor program.

Our next step should you wish to include our program in your school will be to be available at an upcoming open house event and offer the Scouting program to the families. I believe your target date was April and I will keep that tentative time frame in mind. Should you or your board need any other information or wish to go over the program more in depth I will be happy to do that prior to the open house.

Thank you for your time and consideration,

Jonathan Ocheltree
Wapehani District Executive
Hoosier Trails Council
Boy Scouts of America

A United Way/United Fund Agency
SERVING FAMILIES IN 18 COUNTIES



5625 East State Road 46
Bloomington, Indiana 47401-9233
Phone: (812) 336-6809
Fax: (812) 333-2412
www.HoosierTrailsBSA.org



July 31, 2014

Lindsey Weaver
Seven Oaks Classical School

Dear Lindsey:

Girl Scouts of Central Indiana
Suite 100
2611 Waterfront Parkway East Drive
Indianapolis, IN 46214
317.924.6800/877.474.2248
girlscoutsindiana.org

In Girl Scouts, girls discover the fun, friendship, and power of girls together. Through enriching experiences, such as field trips, community service projects, and environmental stewardships, girls grow courageous and strong. Girl Scouting helps girls develop their full individual potential; relate to others with increasing understanding, skill, and respect; develop values to guide their actions and provide the foundation for sound decision-making; and contribute to the improvement of society through their abilities, leadership skills, and cooperation with others.

Girl Scout troops are organized according to specific grade level distributions, though multi-age level troops also exist. Girl Scout grade levels are listed below.

- Girl Scout Daisy – Kindergarten through 1st grade
- Girl Scout Brownie – 2nd through 3rd grade
- Girl Scout Juniors – 4th through 5th grade
- Girl Scout Cadette – 6th through 8th grade
- Girl Scout Senior – 9th through 10th grade
- Girl Scout Ambassador – 11th through 12th grade

The Girl Scout Program is designed to ensure that girls develop as leaders and develop new skills along the way. The program consists of Girl Scout Journeys (thematic program resources) and skill-based badges. These resources are complemented by the Girl Scout Cookie Program, travel and trips, camp opportunities, and many other interest based opportunities. Girl Scout Journeys are mapped to the state education standards with specific information found here http://www.girlscouts.org/program/national_program_portfolio/curriculum/.

Sincerely,

Tiffany Lemons



An equal opportunity employer.

**Girl Scouting builds girls of courage, confidence, and character,
who make the world a better place.**



Core Knowledge Foundation
Letter of School Support

July 31st, 2014

Ms. Lindsey Weaver

Seven Oaks Classical School

889 South College Mall Rd. Suite 371

Bloomington, IN 47401

Dear, Ms. Weaver:

We are pleased to hear of your interest in implementing the *Core Knowledge Sequence* in your charter school. As you are aware, Core Knowledge provides a research-based, teacher-tested curriculum that immerses students in diverse historical, scientific, and cultural content. The curriculum engages students by introducing them to the world, past and present. This wide array of subject matter enables strong reading comprehension and critical thinking—the keys to educational success. I am pleased to describe how we, at the Core Knowledge Foundation, offer various supports to you and your faculty in the early stages of planning and as your school moves forward.

The Core Knowledge Foundation supports various state standards initiatives by complementing these with a content-rich curriculum. The two components, standards and curriculum, work together to bring an equitable education to all students. The standards of many states emphasize the importance of students reading texts across disciplines and building a foundation of knowledge that will give them the background to be better readers in all content areas. The Core Knowledge curriculum provides such a foundation when implemented with fidelity. By building knowledge systematically and coherently within and across grades, students at Core Knowledge schools are provided with rich opportunities to make connections between the disciplines, to access coherently built prior knowledge, and to foreshadow their future learning.

Through various professional development offerings, the Core Knowledge Foundation offers teachers support as they coherently plan for the *domain immersion approach* required by the Core Knowledge curriculum. Several complementary resources are available on the [Core Knowledge website](#), including the [Sequence](#), a [general information packet](#), and a webinar titled [An Overview of Core Knowledge](#). The Foundation also offers support through [workshops, consultations, webinars, institutes, and visits](#).

Through the [Getting Started with the Core Knowledge Sequence](#) workshop, your teachers will learn how and why Core Knowledge is content rich, coherent, cumulative, and should be taught in a context-specific way. One product they create during the training is a school-wide, yearlong Curriculum Plan. When sequencing the topics in the Core Knowledge curriculum, your teachers will use [Filters for Coherence](#) to ensure the order of domains maximizes learning. When determining the pacing of the Curriculum Plan

and developing Domain Maps, your teachers will reflect on the cumulative nature of the *Sequence* as well as considerations for context-specific instruction. The Core Knowledge curriculum cumulatively spirals from basic to advanced content to ensure that knowledge builds within and across grades. Context-specific instruction calls for ideas, people, geography, sayings, works of art, etc., to be taught in the context of the time period or domain—not in isolation. This enables students to make connections within and across subjects, as well as build on content they learned previously.

The [Core Knowledge Leadership Institute](#) is designed to guide your school leaders on how to implement the Core Knowledge curriculum with fidelity. Topics include the Core Knowledge curriculum and approach, implementation planning, resources, effective teaching, parent and community involvement, and high-leverage leadership strategies.

The Foundation also offers support to your school throughout its implementation with [Workshop Follow-up](#) and [School Diagnostic](#) visits. The Workshop Follow-up Visit reviews your school's progress with curriculum planning and initial implementation of Core Knowledge content since participating in the *Getting Started* workshop. The School Diagnostic Visit is tailored to examine your school's Core Knowledge implementation as a whole; it enables us to write detailed feedback that informs you as to areas of strength and continued opportunity. This feedback changes based on the maturity of Core Knowledge implementation, recent professional development, and previously provided feedback and next steps. Recommendations for specific professional development experiences (i.e., [Teaching, Learning, Assessment: Meaningful Instruction](#) or [Domain-Based Unit Writing](#)) may also result from this visit. Please note that your school is not required to participate in our professional development opportunities; however, staff should be able to demonstrate implementation of the tenets set forth in the trainings and outlined in the [Core Implementation Practices](#) document available on our website.

Thank you for contacting the Core Knowledge Foundation. We look forward to supporting your school as you implement the Core Knowledge curriculum and provide your students the content-rich education they need to become productive, engaged citizens.

Best Regards,
Jamie Talbot
Special Projects Coordinator
& the Schools Department Team

Core Knowledge Foundation
801 East High Street
Charlottesville, VA 22902
[\(434\) 220-3345](tel:4342203345)



**STATE OF INDIANA
HOUSE OF REPRESENTATIVES**

THIRD FLOOR STATE HOUSE
INDIANAPOLIS, INDIANA 46204

Peggy Mayfield
State Representative
200 W. Washington Street
Indianapolis, IN 46204
Statehouse: 1-800-382-9841
E-mail: H60@in.gov
Website: www.in.gov/H60

COMMITTEES:
Ways and Means
Judiciary

August 1, 2014

To the members of the Indiana Charter School Board,

In Monroe county, there are limited choices for K-12 education other than Monroe County Consolidated School Corporation and a handful of private schools. For some time, there has been an interest in Monroe county and surrounding areas to create a charter school that focuses on a classical liberal arts approach to education. I've spoken with parents, constituents, and businesses in and around the district and discovered that there is indeed support for a school such as Seven Oaks Classical School.

After meeting with the school's organizers, it is clear that an additional choice for K-12 education is desired and I write this letter hoping that you will give favorable consideration to their application.

Sincerely,

A handwritten signature in black ink that reads "P Mayfield". The signature is fluid and cursive, with the first name "Peggy" and last name "Mayfield" clearly visible.

Peggy Mayfield
State Representative
House District 60

SENATOR DAN COATS
INDIANA



JUSTIN STEVENS
SE INDIANA REGIONAL DIRECTOR

MATT -

THANKS SO MUCH FOR MEETING WITH ME
AND SHARING ABOUT SEVEN OAKS CLASSICAL SCHOOL.
IT IS IMPERATIVE THAT WE PROVIDE THE
CHILDREN OF INDIANA WITH A WIDE VARIETY OF
EDUCATIONAL OPPORTUNITIES. THANKS FOR TAKING
THE LEAD. KEEP IN TOUCH.

A handwritten signature in dark ink, appearing to read "Justin", with a large, stylized loop at the bottom.

The founding board of Seven Oaks Classical School has hosted the following events open to the general public:

January 11, 2014	Informational Session
February 15, 2014	Informational Session
April 13, 2014	Matilda Jane Fundraiser
May 10, 2014	Informational Session
June 14, 2014	Inaugural Hog Roast and Silent Auction
January 27, 2015	BloomingMoms, School Choice: the ABCs
March 8, 2015	Bloomington Area Birth Services Baby Fair
March 14, 2015	Parent Academy and Information Session
Upcoming	
April 12, 2015	City of Bloomington Children's Expo

Seven Oaks Classical school plan moving forward

By Mary Keck 812-331-4353 | mkeck@heralddt.com | Posted: Friday, July 11, 2014 12:00 am

Organizers of the Seven Oaks Classical School are moving forward to open a charter school in Bloomington and have submitted a letter of intent for authorization to the Indiana Charter School Board by the July 9 deadline.

If authorized, the K-7 charter would open in fall 2015 and offer a classical liberal arts and science education with a focus on moral values like perseverance and respect. The 432 students enrolled in the proposed school would study Latin, music, arts, foreign languages and primary resource documents, such as the United States Constitution and Declaration of Independence. In addition, learners would be expected to emerge as responsible citizens.

The founders of Seven Oaks began formulating the idea to open a public charter since 2012. Seven Oaks board president Lindsey Weaver is enthusiastic about the school's chances of getting authorized.

"I think that the overall support has been positive for us, and we're excited about that," she said.

Now that Seven Oaks' letter of intent is in, the next step in the charter authorization process will be to submit a formal proposal for the school by Aug. 6. Public hearings for the charter will be held in the second week of September and the Indiana Charter School board will make a decision about authorizing the school in mid-October.

Find out more about the Seven Oaks Classical School at www.sevenoaksclassical.org and the Indiana Charter School Board at www.in.gov/icsb.



charter schools

Jazzmin Vegeler, a member of the Seven Oaks Classical School board, shares information about a proposed charter school in Bloomington in January. Mary Keck | Herald-Times

2 charter schools set sights on Monroe County

By Mary Keck 331-4353 | mkeck@heraldt.com | Posted: Thursday, December 19, 2013 12:23 am

Charter schools are a hot topic in Bloomington that will continue into the new year, with two charter schools hoping to get authorized in 2014.

Green Meadows charter school organizers intend to move forward to seek authorization, but it may not be with the Ball State Office of Charter Schools. "We intend to apply to the Indiana Charter School board," said proposed Green Meadows Director Mary Goral.

Ball State's Office of Charter Schools Executive Director Robert Marra announced in November that Green Meadows had withdrawn its application; however, the proposed charter school's organizers said they have not withdrawn. Instead, they planned to revise and resubmit their application.

Green Meadows also has plans for community outreach in 2014. Goral said, "Workshops and conversations would be about the philosophy of our school and about charter schools in general." The proposed K-8 charter school's curriculum would be inspired by the Waldorf model, with a focus on social justice and environmental sustainability.

The next year will also mean a new name for Green Meadows, since organizers discovered a private Waldorf school in New York with a similar name.

The newly named charter school hopes to open in August 2015, and it is not alone.

Seven Oaks Classical School, a K-10 charter hoping to offer a classical education in the liberal arts and sciences, wants to enroll students starting in fall 2015, too.

According to Seven Oaks Board President Christopher Flener, the charter organizers are in the process of applying to the Indiana Charter School Board.

Seven Oaks is planning informational sessions in the upcoming year that will be informal and last about four hours. Their first will be on Jan. 11, from 10 a.m. to 2 p.m. at the Monroe County Public Library. Flener said he hopes the sessions will offer people information about the proposed charter and charter schools generally.

Throughout 2013, Monroe County Community School Corp. has voiced opposition to charters based on concerns about the potential impact new charters could have on its funding. For each student, MCCSC receives \$5,415 in funding from the state.

At a public hearing on the proposed Green Meadows charter school, a statement from MCCSC Superintendent Judy DeMuth opposed the charter. It said the school would reduce the funding

MCCSC receives from the state based on enrollment and that the passing of a \$7.5 million referendum indicated community support for public schools.

Green Meadows supporters argued that charters are recognized by the Department of Education as public schools and that state tuition dollars should follow the students. They also noted that students who attend charters may come from outside the district or from homeschool environments rather than MCCSC.

As two charter schools seek authorization in 2014, the discussion about their effect on traditional public schools will continue.

Proposed charter school hosting meeting

H-T report | Posted: Saturday, January 11, 2014 12:00 am

If you have questions about charter schools or Seven Oaks Classical School, a proposed Bloomington charter school that could open in 2015, bring them to the Monroe County Public Library today.

Organizers of the school and representatives of Students First, School Choice Indiana and the Indiana Public Charter School Association will be on hand to answer questions and share information.

The session is from 10 a.m. to 2 p.m. at the library in room 1A. Find out more at

<https://www.facebook.com/SevenOaksClassicalSchool>, or email info@SevenOaksClassical.org.

2 charter schools officially seeking authorization in Monroe County

By Mary Keck 331-4353 | mkeck@heraldt.com | Posted: Friday, January 31, 2014 6:30 am

It is official. Two charter schools are seeking authorization in Bloomington: Seven Oaks Classical School and the Green School, formerly known as Green Meadows. Both hope to open in the fall of 2015 and have filed letters of intent with the Indiana Charter School Board.

“The establishment of Seven Oaks naturally provides a solution to offering wide-ranging programs to public school students,” said Christopher Flener, board president.

The organizers of the proposed Seven Oaks Classical School hope to use traditional teaching methods to provide a classical liberal arts education to students from kindergarten to grade 12. Those attending would study Latin, rhetoric and logic and practice virtues of citizenship. While wearing uniforms, they would memorize multiplication tables, literary works and elements on the periodic table.

“We want to create a culture where knowledge is the prime focus,” said Lindsey Weaver, a board member, at an informational session earlier this month. There is not yet a location planned for the school, and the number of students that would be enrolled has not been determined.

“None of the founders have applied for charter school authorization in the past or been involved in starting a charter school before,” said Flener in an email.

Before submitting their letter of intent, Seven Oaks gave it to others for review. As a result, Flener feels positive about the charter getting authorized. “We’re obviously very hopeful; we think our chances are pretty good,” he said.

After initially seeking authorization from Ball State University’s Office of Charter Schools for a charter school called Green Meadows, organizers chose to revise and resubmit their application. According to Mary Goral, the proposed charter’s director, the organizers may continue to work with Ball State, but applying now would set back opening the school until 2016. In the meantime, Green



charter schools

Jazzmin Vegeler, a member of the Seven Oaks Classical School board, shares information about a proposed charter school in Bloomington in January. Mary Keck | Herald-Times

Meadows, now called the Green School, has chosen to seek authorization from the Indiana Charter School Board, an independent state agency authorized by the Legislature to establish charter schools. They also approached local public school corporations for authorization.

Goral spoke with both Monroe County Community School Corp. Superintendent Judy DeMuth and Brown County Schools Superintendent David Shaffer, but neither district has agreed to authorize the Green School. At its board meeting on Tuesday, MCCSC discussed the option, but did not vote on authorizing the Green School.

If MCCSC authorized a charter, they could charge a fee of 3 percent based on the state tuition funds the charter receives for each student who attends. MCCSC would also hold the charter accountable for its performance and could close the school. The charter would have its own board and budget that would be separate from MCCSC's, however.

"There are lots of things to consider if we were to look at that kind of thing," said DeMuth. "Tim (Thrasher, business operations director) and I can't find the financial piece that looks like it would be profitable," she said. "It's just one more population we would be accountable for."

"What will happen if the law is changed while we're a sponsor?" said Lois Sabo-Skelton, board member. "I don't want us to get hooked up with a charter school," she said. "I'm afraid of what the law will do to us if we are connected to one." Sabo-Skelton said she would not support authorizing a charter school.

Board member Sue Wanzer was more open to the idea. "I would like to find a way to be the authorizing agent for a charter school, but now that we have all this information ... it brings up more questions," she said. "I'm not looking necessarily for a way for us to make money, but looking for a way that we don't lose money when our students go to a charter program."

After the meeting, Goral said, "It would be very nice to work in partnership with Monroe County schools."

Goral feels optimistic about the charter's chances for being authorized by the Indiana Charter School Board. "I think what we have to offer is really good for kids, an opportunity and a choice and an alternative that people in Bloomington deserve."

A charter school on the East Coast called Green Meadow asked for the name change. "We decided to honor their request," said Goral. The Green School may have a new name, but their intended board, curriculum and methods remain largely the same.

Goral said the proposed K-8 school will be arts-infused, focusing on multiple intelligences and social and emotional learning. It will offer an integrated curriculum, place-based education, universal designs, Waldorf methods and education for sustainability. "All those things we were going to be using, but it seemed like the public didn't know that that's what Waldorf did," she said.

The Green School does not yet have a location for its school building.

Upcoming Informational Sessions:

Seven Oaks Classical School on Feb. 15 from 2-3:30 p.m. at the Monroe County Public Library's Auditorium, 303 E. Kirkwood.

The Green School on March 26 at 6:30 p.m. at The Project School, 349 South Walnut St.

Get more information on Facebook at Seven Oaks Classical School and The Green Meadows Charter School Initiative. Find out more about the Indiana Charter School Board: <http://www.in.gov/icsb/>.

2 new charter schools' development moving ahead

By Mary Keck 331-4353 | mkeck@heraldt.com | Posted: Thursday, March 6, 2014 1:18 am

Two groups of charter school organizers are moving forward with authorization to open schools in Bloomington in fall 2015, but only one has completed its application.

The Seven Oaks Classical School and the Green School hope the Indiana Charter School Board will authorize their schools, and while Seven Oaks plans to wait to submit its application until fall 2014, it could still open next year. The Green School, formerly known as Green Meadows, has submitted a proposal, and it is set to have a public hearing in late March or early April.

"I feel really positive about the fact that we've really reflected and refined this proposal," said Mary Goral, education director for the proposed Green School. "We think we have a better school model to offer the community."

The Green School

The Green School hopes to enroll 165 students in grades K-5 in its first year, but after four years it will admit a total of 240 students in grades K-8.

"We don't want to be as big as we originally planned," Goral said. The proposed charter has reduced its enrollment size, compared with the 490 maximum students listed enroll in plans submitted to the Office of Charter Schools at Ball State University in August 2012. She said the school wanted to be smaller to help with community building and make its budget work.

The Green School organizers have chosen the Woolery Stone Mill, 2200 W. Sunstone Drive, for the school building, but the location isn't official and is contingent upon inspections.

"We haven't signed paperwork yet," Goral said.

While the school size and proposed location have changed, the planned curriculum for the school still remains largely the same, but Goral feels the proposal is refined and more clearly expresses the school's mission.

"Even though we always had education for sustainability and social justice as our philosophy, this proposal embraces it even more than before," she said.

From organic soap in the bathrooms to native plants in the gardens on school grounds, the Green School takes a sustainable and environmentally friendly approach. Using the Waldorf method of teaching, they will offer an arts-infused curriculum, social and emotional learning, and place-based learning, and hope to involve members of the community who will share their passions with students in class.

The organizers revised the plan based on community input and critical reflection. “We responded to community feedback as well as to our own looking inward,” Goral said. “I feel really positive about the fact that we’ve really reflected and refined this proposal. We think we have a better school model to offer the community.”

Seven Oaks Classical School

Organizers of the Seven Oaks Classical School won’t submit their application until August 2014, but they still plan to open their doors in fall 2015. They decided not to submit their application before the deadline at the end of February because Seven Oaks hasn’t yet nailed down a location.

“It really came down to the facilities,” said Christopher Flener, Seven Oaks board president. “It’s difficult to find the right facility for what we’re doing.”

Because Seven Oaks intends to enroll learners in grades K-12 and build up to a maximum of 650 students, it needs a larger building. At this point, Flener said the board hasn’t decided if they will remodel a building or purchase land where they can build the school.

While a smaller building could be used for just elementary students, Flener said the traditional liberal arts curriculum Seven Oaks organizers plan to offer must incorporate every grade. “The classical education model is set up for K-12. It’s broken down into three distinct parts,” he said. “You can’t just cut down and say we’re going to do a K-6 that cuts down half of the educational process.”

In grades K-6, students will study Latin, which will continue into middle school, when they will also learn logic. In high school, they will study rhetoric and Latin will be an elective. If authorized, Seven Oaks will emphasize America’s founding principles, requiring that learners read and understand the U.S. Constitution and Declaration of Independence.

Seven Oaks teachers will instruct students using methods such as memorization of multiplication tables, literary works and elements of the periodic table.

Guest column: Charter schools misunderstood, offer options

By Lindsey Weaver | Posted: Monday, June 15, 2015 6:00 am

This guest column is by Lindsey Weaver, founding board president of Seven Oaks Classical School.

I write to introduce you to Seven Oaks Classical School. Seven Oaks hopes to open in the fall of 2016 and become the first classical K-12 charter school in Bloomington. To this end, the board is currently pursuing authorization of its charter.

The stated mission of Seven Oaks is to train the minds and improve the hearts of young people through a rigorous classical education in the liberal arts and sciences. We believe that our democratic republic depends on an intelligent and virtuous citizenry, and that a traditional education is well-suited to that end.



Seven Oaks

Charter schools are often misunderstood. Some think they hand-pick students. In fact, charter schools are independent public schools of choice. Anyone may enroll. No tuition is charged, and no tests are given to determine eligibility. If there happens to be a waiting list, the order of admission is decided by lottery. Most children do not have a choice in where they attend school. Instead, they are obligated to attend the public school of the district in which they happen to reside, or they may be able to attend a private school. But not every school is created equal. Nor is every child the same. That is where charter schools come in. They offer a meaningful choice to students who are looking for another option.

Seven Oaks would give Bloomington families the option of a classical education. A classical education is a traditional education. It is traditional in its aims, curriculum and methods. It seeks to orient students' minds and affections to the true, the beautiful and the good, and to make the pursuit of these things a way of life. We hope to graduate students who possess a well-stocked mind, a lively imagination, a decent character and an abiding concern for the common good.

Our curriculum is content-rich. Beginning in kindergarten, students will learn to read and write through traditional instruction in phonics, grammar and composition. They will read classic works of literature and recite poems. They will study the history and geography of major world civilizations. Throughout elementary and middle school, our students will receive continuous instruction in art and music, including history, theory and performance. Upper-level classes will include rhetoric and moral philosophy, and seniors will write and defend a 15-page thesis. It goes without saying that our curriculum will not be

driven by standardized tests.

Finally, a classical education uses traditional methods. Our approach rests on the old-fashioned belief that teachers should teach and students should study. We believe that good teachers know something that their students do not and that this knowledge is worth learning. Teachers' methods will vary. Socratic dialogue, seminar discussion, recitation, experiments—all have a place.

This education is traditional, but it is not outmoded. It is timeless — backed by long experience, common sense and the latest in cognitive science. For 2,000 years, a classical education was sought by all who could afford it. It is the education that made possible the greatest achievements of Western civilization. Seven Oaks Classical School is proud to stand in this tradition. Beginning next fall, Seven Oaks hopes to make such an education available to all who desire it.

For more, go to www.sevenoaksclassical.org

This ad is supporting your extension *PageRank Checker*. [More info](#) | [Privacy Policy](#) | [Hide on this page](#)

Latin

Seven Oaks understands that Latin will provide the educational foundation necessary to gain a critical knowledge of English sentence structure. A high level of competence with grammar results from the study of Latin. It is commonly noted that acquiring this competence with grammar disciplines and strengthens the mind. Latin will be taught in grades 3 through 9, and subsequently as an elective.

Character Education

Seven Oaks advocates the teaching of virtues using traditional methods. Only through teaching and practicing the virtues of citizenship, cooperation, courage, honesty, integrity, perseverance, respect, and responsibility do we prepare our children for a life well lived. We agree with Aristotle's dictum that one becomes virtuous by practicing the virtues.

Civics and Citizenship

According to the Intercollegiate Studies Institute (ISI), a 2008 study revealed that when 2,508 adults of all ages and educational backgrounds were tested on their civic knowledge, 71% of Americans failed the exam. High school graduates failed the test with an average score of 44%, while college graduates averaged an abysmal 57%. As Thomas Jefferson said, "The will of the people is the only legitimate foundation of any government, and to protect its free expression should be our first object." Our students will become knowledgeable and responsible citizens.

"The liberally educated person is one who is able to resist the easy and preferred answers, not because he is obstinate, but because he knows others worthy of consideration."

– *Allan Bloom*

Seven Oaks Classical School
3210 East 10th Street, #7262
Bloomington, IN 47408



A Tuition-Free Charter School

Teaching the liberal arts and sciences while developing moral character and civic virtue.



Why Choose Seven Oaks Classical School?

About Seven Oaks

Seven Oaks Classical School is a traditional school where students learn reading, writing, and arithmetic through time-proven teaching methods. They memorize multiplication tables, literary works, and elements on the periodic table.

Seven Oaks Classical School emphasizes America's founding principles. Students at Seven Oaks not only read the Constitution and Declaration of Independence, they understand them. We teach cultural literacy, including historical facts, geography, scientific method, and other subjects necessary to develop responsible citizens.

Seven Oaks Classical School upholds a standard of excellence represented in the Eight Pillars of Character (citizenship, cooperation, courage, honesty, integrity, perseverance, respect, and responsibility), which are integrated into every area of study and educational program. Teachers at Seven Oaks believe modeling and practicing these eight virtues are critical to a robust education.

Seven Oaks Classical School believes Latin is an important part of a student's education. Through the study of Latin, students will improve their capacity to build an exhaustive English vocabulary. In addition to the study of Latin, students will also study either French or Spanish in grades K - 5.

Features of Seven Oaks

- Tuition-free K-12 Charter School
- Classical Education
- Hillsdale College Affiliate
- Core Knowledge K-8 Curriculum
- Riggs Writing and Spelling(phonics)
- Singapore Math
- Emphasis on Civics
- Character Education
- Cultural Literacy
- Foreign Languages
- Music and the Arts
- Socratic Discussion
- Great Books and Literature
- Study of History through Primary Sources
- Teachers who are Masters of their Subject Area

Mission Statement

The mission of Seven Oaks Classical School is to train the minds and improve the hearts of young people through a rigorous, classical education in the liberal arts and sciences, with instruction in the principles of moral character and civic virtue.

Classical Education

Classical education adheres to an ancient view of learning and traditional teaching methods.

Classical education:

- values knowledge for its own sake;
- upholds the standards of correctness, logic, beauty, weightiness, and truth intrinsic to the liberal arts;
- demands moral virtue of its adherents;
- and prepares human beings to assume their places as responsible citizens.

Meet Some of Our Teachers

Aristotle
Newton
Franklin
Plato

Lincoln
Bach
Shakespeare
Virgil

Socrates
Jefferson
Homer
Austen

“Education is teaching our children to desire the right things.” - Plato



Seven Oaks Classical Charter School

Invites You, Our Special Guest, To Our First Inaugural

Pig

ROAST

& Silent Auction

CHARITY

JUNE 14
2014

Bryan Park
Woodlawn Group Shelter

12pm-5pm

Kids Eat Free!
(Ages 0 - 6)

Pig, Potato Salad, Cole Slaw, Rye, Fruit Salad, Cheese, and Soft Drinks

Admission
is One Entree

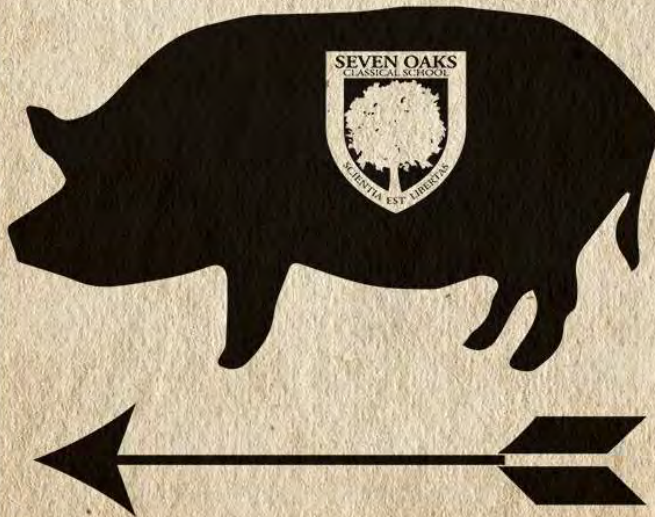
Adults: \$15

Kids > 6yrs: \$7

Family Fun!

Croquet
Corn Hole
Bocci Ball
Horseshoes
Ball Games

Family Fun!

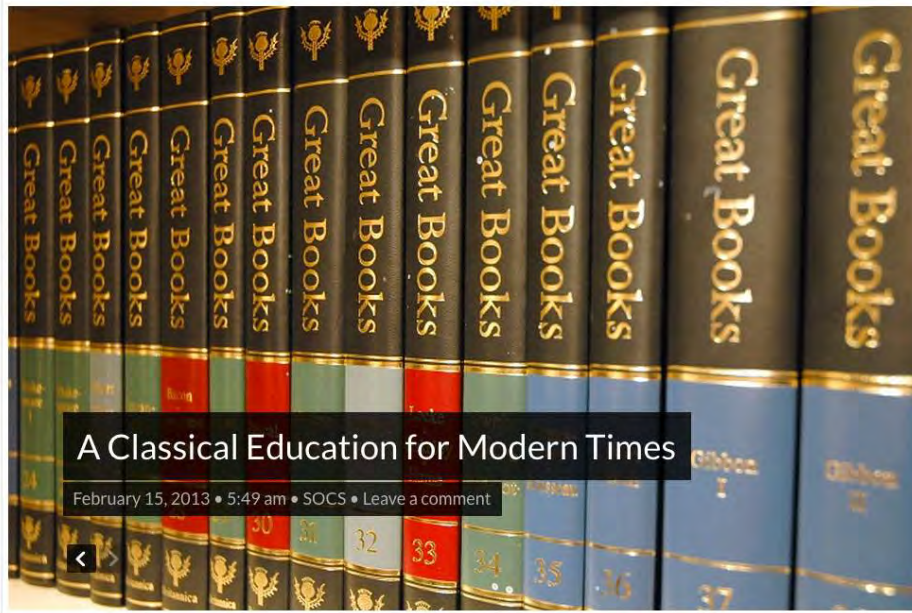


<http://sevenoaksclassical.org>



SEVEN OAKS

Classical School

[Home](#)[About](#)[Academics](#)[Classical Education](#)[FAQ](#)[Events](#)[Contact Us](#)

A Classical Education for Modern Times

February 15, 2013 • 5:49 am • SOCS • [Leave a comment](#)



As did America's Founding Fathers, Seven Oaks Classical School believes that the preservation of liberty depends on an intelligent and moral citizenry. Seven Oaks Classical School provides an education for a life well lived.

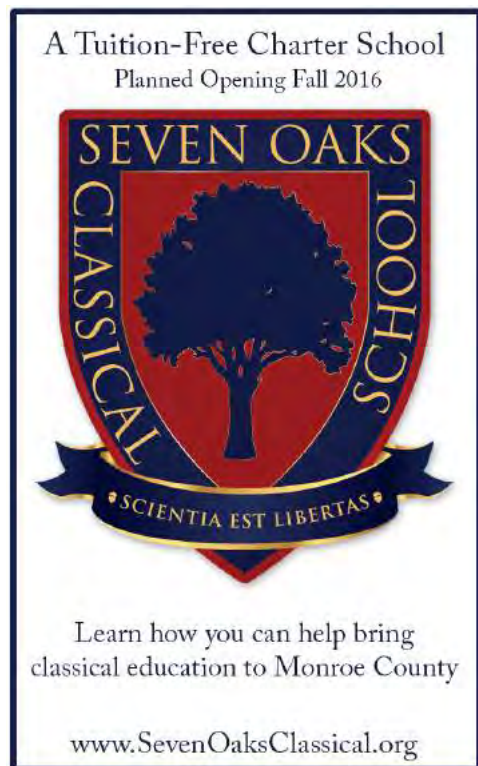


Figure 1 Ad Placement

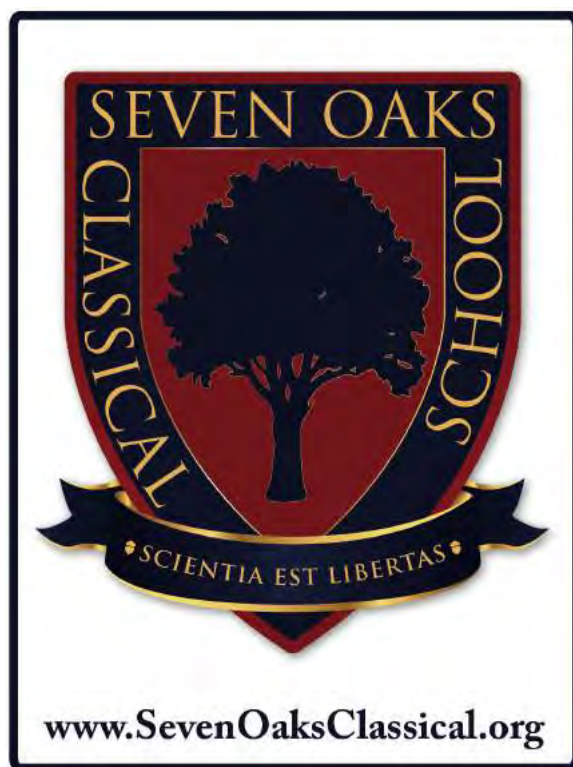


Figure 2 Sticker

Seven Oaks Classical Charter School

Invites You, Our Special Guest, To Our Second Annual

Pig ROAST & Silent Auction

CHARITY

**Saturday
June 20**

On the grounds of
**Sherwood Oaks
Christian Church**

12pm-4pm

Kids Eat Free!

(Ages 0 - 6)

Pig, Baked Beans, Mac & Cheese, Fruit Salad, Cole Slaw, Cheese, and Soft Drinks

**Admission
is One Entree**

Adults: \$15

Kids > 6yrs: \$7

Family Fun!

Croquet
Corn Hole
Bocci Ball
Horseshoes
Ball Games

Family Fun!



<http://sevenoaksclassical.org>

driven by standardized tests.

Finally, a classical education uses traditional methods. Our approach rests on the old-fashioned belief that teachers should teach and students should study. We believe that good teachers know something that their students do not and that this knowledge is worth learning. Teachers' methods will vary. Socratic dialogue, seminar discussion, recitation, experiments—all have a place.

This education is traditional, but it is not outmoded. It is timeless — backed by long experience, common sense and the latest in cognitive science. For 2,000 years, a classical education was sought by all who could afford it. It is the education that made possible the greatest achievements of Western civilization. Seven Oaks Classical School is proud to stand in this tradition. Beginning next fall, Seven Oaks hopes to make such an education available to all who desire it.

For more, go to www.sevenoaksclassical.org

This ad is supporting your extension *PageRank Checker*. [More info](#) | [Privacy Policy](#) | [Hide on this page](#)



Signatures

Name	Location	Date
Lindsey Weaver	Bloomington, IN, United States	2014-07-12
Jennifer Kleber	Bloomington, IN, United States	2014-07-12
Alison Leslie	Bloomington, IN, United States	2014-07-12
Jazzmin Vegeler	Bloomington, IN, United States	2014-07-12
Jennifer Allen	Bloomington, IN, United States	2014-07-12
Cassie Shipley Trapp	Nashville, IN, United States	2014-07-12
Brigitta Powers	Bloomington, IN, United States	2014-07-12
Curt Merlau	Bloomington, IN, United States	2014-07-12
Curtis Taylor	Bloomington, IN, United States	2014-07-12
Suzanne Weaver	Columbus, IN, United States	2014-07-12
Stacy Bruce	Bloomington, IN, United States	2014-07-12
Stacey Shipley	Columbus, IN, United States	2014-07-12
Vanessa Willerson	Nashville, IN, United States	2014-07-12
Christy Schmidt	Morgantown, IN, United States	2014-07-12
June pentecostes	Mexico	2014-07-12
Matt Wolf	Bloomington, IN, United States	2014-07-12
Shannon Tibbs	Bloomington, IN, United States	2014-07-12
Rachel Caswell	Spencer, IN, United States	2014-07-12
Charles Taylor	Bloomington, IN, United States	2014-07-12
Carla English	Spencer, IN, United States	2014-07-12
Greg Knott	Bloomington, IN, United States	2014-07-12
James Billingsley	Bloomington, IN, United States	2014-07-12
Adam Weber	Hood River, OR, United States	2014-07-12
Sandra Killalea	Alexandria, VA, United States	2014-07-13
Gavin Murphy	Bloomington, IN, United States	2014-07-13
Ekaterina Anferova	Bloomington, IN, United States	2014-07-13
Yolanda Toschlog	Nashville, IN, United States	2014-07-13
Nikki Wolf	Bloomington, IN, United States	2014-07-13
Gabriel Hounds	Everett, WA, United States	2014-07-13
Adam Braun	Ellettsville, IN, United States	2014-07-13

Name	Location	Date
Bonnie Fisher	Fort Wayne, IN, United States	2014-07-13
Abbi Surles	Springville, IN, United States	2014-07-13
andrew finn	Tempe, AZ, United States	2014-07-13
Christi Hootman	La Grange, KY, United States	2014-07-13
carrie scoccola	Louisville, KY, United States	2014-07-14
Kellie Dinsmore	Las Cruces,, NM, United States	2014-07-14
Andrew Rusch	Bloomington, IN, United States	2014-07-14
Bill Maegerlein	Ellettsville, IN, United States	2014-07-14
Clinton Small	Bloomington, IN, United States	2014-07-14
Candi Haley	Bloomington, IN, United States	2014-07-14
Cindy Tirey	bloomington, IN, United States	2014-07-14
Heather Saylor	Avon, IN, United States	2014-07-14
Jillian Miers	Bloomington, IN, United States	2014-07-14
Jacob Hercamp	Columbus, IN, United States	2014-07-14
Karen Cole	Bloomington, IN, United States	2014-07-14
Kevin Welz	Henryville, IN, United States	2014-07-14
David Bielick	Bloomington, IN, United States	2014-07-14
Nathan Cheesman	Bloomington, IN, United States	2014-07-14
Jeremy Kohlman	Bloomington, IN, United States	2014-07-14
Robert Hall	Bloomington, IN, United States	2014-07-14
Nancy Ganka	Bloomington, IN, United States	2014-07-14
William Ellis	Bloomington, IN, United States	2014-07-14
Cindy Grow	Oolitic, IN, United States	2014-07-14
Amy Hagerstrom	Greenwood, IN, United States	2014-07-14
Kristen Wolf	Fort Wayne, IN, United States	2014-07-14
Russell Brooksbank	Clarksville, IN, United States	2014-07-14
Dexter Luck	Bloomington, IN, United States	2014-07-14
Scott Fleck	Bloomington, IN, United States	2014-07-14
Daniel Smith	Edinburgh, IN, United States	2014-07-14
Melissa Lineberry	Monroeville, IN, United States	2014-07-14
James Mansell	Bloomington, IN, United States	2014-07-14
Lucinda Wolf	Hoagland, IN, United States	2014-07-14

Name	Location	Date
Jordan Inman	Bloomington, IN, United States	2014-07-14
Kelley Curran	Jeffersonville, IN, United States	2014-07-14
Nuit Weber	Bloomington, IN, United States	2014-07-14
John Hussey	Bloomington, IN, United States	2014-07-14
Travis Carter	Louisville, KY, United States	2014-07-14
Justin Ross	Bloomington, IN, United States	2014-07-14
Thom Gillespie	Bloomington, IN, United States	2014-07-14
Cindy King	Portland, OR, United States	2014-07-14
Ryan Ianglely	Bloomington, IN, United States	2014-07-14
Joshua Kelley	Indianapolis, IN, United States	2014-07-14
Brian Ellison	Bloomington, IN, United States	2014-07-14
Allene Lowrey	Whitestown, IN, United States	2014-07-14
Paul White Sr.	Bloomington, IN, United States	2014-07-14
Walter Hatfield	Bloomington, IN, United States	2014-07-14
Vivien Bridges	Unionville, IN, United States	2014-07-14
Lily Holland	Seligman, MO, United States	2014-07-14
DeAnne Weaver	Columbus, IN, United States	2014-07-14
Robert Ortiz	Phoenix, AZ, United States	2014-07-14
John Shean	Bloomington, IN, United States	2014-07-14
Greg Blanton	Salem, IN, United States	2014-07-15
Scott Tibbs	Bloomington, IN, United States	2014-07-15
Brian Kloss	Bloomington, IN, United States	2014-07-15
Aaron Jones	Bloomington, IN, United States	2014-07-15
John Finke	Columbus, IN, United States	2014-07-15
haley church	Westfield, IN, United States	2014-07-16
Ginnie Phero	Bloomington, IN, United States	2014-07-16
Asha Meyer	Bloomington, IN, United States	2014-07-16
Joshua Dennis	Bloomington, IN, United States	2014-07-16
Miriam Boyken	Bloomington, IN, United States	2014-07-16
Scott Muckerheide	Bloomington, IN, United States	2014-07-16
Kevin Jackson	Bloomington, IN, United States	2014-07-16
Karla Forslund	Indianapolis, IN, United States	2014-07-17

Name	Location	Date
Wesley Smith	Atlanta, GA, United States	2014-07-17
Anne Stephenson	Bloomington, IN, United States	2014-07-17
Barbara Fravel	Columbus, IN, United States	2014-07-17
Dara Eckart	Ellettsville, IN, United States	2014-07-17
Michael w	Bloomington, IN, United States	2014-07-17
Craig Roush	Nashville, IN, United States	2014-07-17
matt humm	Bloomington, IN, United States	2014-07-17
Holly Warner	Bloomington, IN, United States	2014-07-17
Linda Murphy	Bloomington, IN, United States	2014-07-17
Mark Bender	Bloomington, IN, United States	2014-07-18
Senta Morrison	Bloomington, IN, United States	2014-07-18
Brady Cockerham	Bloomington, IN, United States	2014-07-18
Ryan Black	Bloomington, IN, United States	2014-07-18
Jordan Warner	Bloomington, IN, United States	2014-07-18
Tina Roush	Nashville, IN, United States	2014-07-18
M Berry	Bloomington, IN, United States	2014-07-19
Terren Green	Bloomington, IN, United States	2014-07-19
eric schansberg	jeffersonville, IN, United States	2014-07-19
Anna Vinson-Chastain	Bloomington, IN, United States	2014-07-20
Elizabeth Tedrow	Bloomington, IN, United States	2014-07-21
Daniel Forslund	Indianapolis, IN, United States	2014-07-21
Andrew Horning	Freedom, IN, United States	2014-07-21
Brian Hasler	Indianapolis, IN, United States	2014-07-21
Katy Patrick	Lincoln, NE, United States	2014-07-21
jennifer adam bailey	Bloomington indiana, IN, United States	2014-07-21
Greg Kuzmits	Bloomington, IN, United States	2014-07-21
Andrea Schuch	Bloomington, IN, United States	2014-07-21
Ellen Stauffer	Bloomington, IN, United States	2014-07-21
Sara Hardy	Bloomington, IN, United States	2014-07-22
Daniel Fickenscher	Bloomington, , Dominican Republic	2014-07-22
Ken Rhoden	Martinsville, IN, United States	2014-07-22
David Crane	Bloomington, IN, United States	2014-07-22

Name	Location	Date
Ram Podicheti	Bloomington, IN, United States	2014-07-23
Jennifer Russell	Bloomington, IN, United States	2014-07-23
Austin Rader	Bloomington, IN, United States	2014-07-24
Jevne Taylor	Bloomington, IN, United States	2014-07-24
Rachel McCarty	Bloomington, IN, United States	2014-07-24
John Bailey	Bloomington, IN, United States	2014-07-24
Diana Kinser	Solsberry, IN, United States	2014-07-24
Amanda Russell	Solsberry, IN, United States	2014-07-24
Marilyn Brinley	Bloomington, IN, United States	2014-07-25
Rebecca Martinez Reid	Bloomington, IN, United States	2014-07-26
Amy Jen	Bloomington, IN, United States	2014-07-26
Robert Lorimer	Bloomington, IN, United States	2014-07-27
Russell Melling	Coatesville, IN, United States	2014-07-28
Michele Trautenberg	Libertyville, IL, United States	2014-07-30
Mark Kleinbauer	Bloomington, IN, United States	2014-07-30
Bryan Lemonds	Bloomington, IN, United States	2014-07-31
Judith Smith-Ille	Bloomington, IN, United States	2014-07-31
Greg Knott	Bloomington, IN, United States	2014-07-31
Martina Webster	Sellersburg, IN, United States	2014-07-31
Margaret Fette	Bloomington, IN, United States	2014-07-31
Tama DUVALL	BLOOMINGTON, IN, United States	2014-07-31
Kevin Davis	Westfield, IN, United States	2014-07-31
Patrick McAleer	Bloomington, IN, United States	2014-08-01
Kristin Stratten	Bloomington, IN, United States	2014-08-02
Loretta Nelson	Bloomington, IN, United States	2014-08-03
Vivian Winston	Bloomington, IN, United States	2014-08-03
Heather Crossin	Indianapolis, IN, United States	2014-08-04
Christopher Arterberry	Bloomington, IN, United States	2014-08-04
David Read	Carmel, IN, United States	2014-08-04
Dan Caldwell	Bloomington, IN, United States	2014-08-04
Julia Hageman	Bloomington, IN, United States	2014-08-05
Annette Stonger	Bloomington, IN, United States	2014-08-05

Name	Location	Date
Sandi Lyle	Carmel, IN, United States	2014-08-05
Barbara Judah	Bloomington, IN, United States	2014-08-05
diane bowman	Indianapolis, IN, United States	2014-08-06
Rick Barr	Avon, IN, United States	2014-08-06
Sue Lile	Carmel, IN, United States	2014-08-06
Lynn Jamieson	Bloomington, IN, United States	2014-08-08
Kim Phillips	Bloomington, IN, United States	2014-08-10
Mindy Roadruck	Gosport, IN, United States	2014-08-10
Concerned Citizen	New City, NY, United States	2014-08-11
Seann O'Neill	Tempe, AZ, United States	2014-08-12
Pam Boland	Grovetown, GA, United States	2014-08-15
Abbi Rice	Bloomington, IN, United States	2014-08-18
Lawrence Ness	Columbus, IN, United States	2014-08-22
Rebecca Sink-Burris	Bloomington, IN, United States	2014-09-02
Gregory Sell	Goshen, IN, United States	2014-09-04
Ann Cooney	Indianapolis, IN, United States	2014-09-22
Gloria Reed	Bloomington, IN, United States	2014-09-23
Ali Roadruck	Gosport, IN, United States	2014-09-24
Eugenia Jabkowski	Clarksville, TN, United States	2014-10-25
linda chandler	Freedom, IN, United States	2015-02-16
Jackie McDonald	Bloomington, IN, United States	2015-02-16
heather lamm	Bloomington, IN, United States	2015-02-17
Dave Nakarado	Bloomington, IN, United States	2015-02-17
Kristy Rainwater	Nineveh, IN, United States	2015-02-17
Guy Platter	Fort Wayne, IN, United States	2015-02-17
Soo Sup Cha	Bloomington, IN, United States	2015-02-17
Dustin Huffman	Bloomington, IN, United States	2015-02-17
Rachel Caswell	Spencer, IN, United States	2015-02-17
Simon normile	Morgantown, IN, United States	2015-02-18
Jason Caswell	Spencer, IN, United States	2015-02-18
Camille Alfs	Avon, IN, United States	2015-02-18
Gabriel Gluesenkamp	Nashville, IN, United States	2015-02-18

Name	Location	Date
Paul Pisano	Bloomington, IN, United States	2015-02-19
Emilia Brunner	Bloomington, IN, United States	2015-02-19
Paul Brunner	Bloomington, IN, United States	2015-02-19
Hillary Gebhardt	Solsberry, IN, United States	2015-02-19
Alicia Graves	Bloomington, IN, United States	2015-02-19
Valerie piercy	Bloomington, IN, United States	2015-02-20
Rochelle Hart	East Brunswick, NJ, United States	2015-02-20
Sue Head	East Brunswick, NJ, United States	2015-02-21
Sarah Costa	Bloomington, IN, United States	2015-03-06
Jennifer Edwards	Bloomington, IN, United States	2015-03-10
Melissa Lorenzen Smith	Bloomington, IN, United States	2015-03-10
Barbara Ooley	Bloomington, IN, United States	2015-03-10
Kyra Elkins	Bedford, IN, United States	2015-03-10
Amy Coddens	Bloomington, IN, United States	2015-03-11
Patrick McAleer	Bloomington, IN, United States	2015-03-11
Susan Monsey	Bloomington, IN, United States	2015-03-11
Tamara Martin	Gosport, IN, United States	2015-03-11
Emily Garrison	Springfield Township, NJ, United States	2015-03-13

Recipient: Indiana Charter School Board

Letter: Greetings,

Support the bringing of a classical education in the liberal arts and sciences to the children of Bloomington, Indiana.

Comments

Name	Location	Date	Comment
jazzmin vegeler	Bloomington, IN	2014-07-12	I want this educational option in my community.
Jim Billingsley	Bloomington, IN	2014-07-12	It would be great to have a school that uses the proven classical methods (grammar, logic, rhetoric) that worked so well in the past. I would welcome a school that emphasizes morality and character development, as well as teaching real history (as opposed to the PC progressive crap that permeates most government schools). I love the idea of using original source documents and teaching the Constitution and Declaration of Independence. I want to see this school come into existence and succeed. The kids need it, the community needs it, the nation needs it.
Bill Maegerlein	Ellettsville, IN	2014-07-14	Would be a great charter school
Candi Haley	Bloomington, IN	2014-07-14	Having an educational option in the community makes sense.
Robert Hall	Bloomington, IN	2014-07-14	It's good for the community to have a rigorous academic alternative to our government schools.
William Ellis	Bloomington, IN	2014-07-14	Any choice a parent has on education, that is a quality, informed choice, is worth having. The classical methods work-that's why they are classical methods!. I'm pleased to support this.
James Mansell	Bloomington, IN	2014-07-14	Classical education is a way back to a more intelligent and enlightened country.
Thom Gillespie	Bloomington, IN	2014-07-14	More options in education always help.
Joshua Kelley	Indianapolis, IN	2014-07-14	Our founders were trained in the classics and if we want to preserve the liberty that they fought for then future generations need to learn to be enlightened as well.
Allene Lowrey	Whitestown, IN	2014-07-14	The more options parents have to get away from the public school system, the better, so far as I'm concerned.
Vivien Bridges	Unionville, IN	2014-07-14	The more options we have in this community the better.
Lily Holland	Seligman, MO	2014-07-14	As a teacher and former IU Grad, I want to see Bloomington continue to offer quality educational programs to the community.
John Shean	Bloomington, IN	2014-07-14	A free citizenry can only remain free for so long as they can critically think for themselves.
Scott Tibbs	Bloomington, IN	2014-07-15	I want my sons (two years old and three months old) to enjoy the benefit of a classic liberal arts education.
Brian Kloss	Bloomington, IN	2014-07-15	As a parent I would love to have an alternative to the Prussian System that is currently used in our public schools that place conditioning of our children above teaching them Life, Liberty and the pursuit of happiness.
Ginnie Phero	Bloomington, IN	2014-07-16	I am very concerned about the lack of teaching of history, science and the arts in public schools. In addition, I believe that principles of good character should be taught.
Barbara Fravel	Columbus, IN	2014-07-17	Better education for our children is important.
Tina Roush	Nashville, IN	2014-07-18	We have Classically educated my children since kindergarten. As we are considering where we want to send our daughter to HS, the option of a Classical school thrills both her and us.
Terren Green	Bloomington, IN	2014-07-19	There is no one right way to educate every child. We need as much variety in schooling methods as there is diversity in learning styles.
eric schansberg	jeffersonville, IN	2014-07-19	more choice for parents and children

Name	Location	Date	Comment
Anna Vinson-Chastain	Bloomington, IN	2014-07-20	I would like to see more educational options in Bloomington.
jennifer adam bailey	Bloomington indiana, IN	2014-07-21	Without this school option I will have to homeschool
Greg Kuzmits	Bloomington, IN	2014-07-21	The current top-down system is broken and a waste of taxpayer funding.
Andrea Schuch	Bloomington, IN	2014-07-21	I like the varied education options in Bloomington and have a desire for them to increase even more. This would be a great addition to our area.
Ken Rhoden	Martinsville, IN	2014-07-22	I feel there is a need for this opportunity.
Amy Jen	Bloomington, IN	2014-07-26	To restore the true meaning of education, which is to produce open-minded, creative, moral and responsible citizens.
Robert Lorimer	Bloomington, IN	2014-07-27	This education is needed here
Greg Knott	Bloomington, IN	2014-07-31	We need another public school choice for parents and students in the Bloomington area. Not every student learns in the same way, so a "one size fits all" system won't allow every student to reach their full potential.
Margaret Fette	Bloomington, IN	2014-07-31	It's all about choice!
Christopher Arterberry	Bloomington, IN	2014-08-04	Our community needs diverse approaches to education.
Julia Hageman	Bloomington, IN	2014-08-05	We truly believe in classical education and would love to have this option available to our 5 children here in Bloomington.
Lynn Jamieson	Bloomington, IN	2014-08-08	I believe this community needs options for education.
Seann O'Neill	Tempe, AZ	2014-08-12	I support parents' rights to decide the manner in which their children are educated, within reason, and I support the principles that will be taught at Seven Oaks Classical School: the habits of thoroughness, the willingness to work, and the perseverance to complete difficult tasks.
Rebecca Sink-Burris	Bloomington, IN	2014-09-02	More competition in education will lead to innovation and better education.
Gloria Reed	Bloomington, IN	2014-09-23	Grandchildren
Paul Pisano	Bloomington, IN	2015-02-19	I fully agree with the educational aims of Seven Oaks and I want my son, who will be a seventh grader in 2016, to be able to attend Seven Oaks as an alternative to the middle school in whose boundaries we live.
Emilia Brunner	Bloomington, IN	2015-02-19	Education is not a one-size-fits-all deal. The more options parents have for their children, there will be more of an opportunity for the kids to succeed in an environment that suits them best.
Alicia Graves	Bloomington, IN	2015-02-19	I believe choice is a good thing and it should be offered.
Rochelle Hart	East Brunswick, NJ	2015-02-20	We need students who are better prepared to be tomorrow's leaders.
Susan Monsey	Bloomington, IN	2015-03-11	classical education is essential
Emily Garrison	Bloomington, IN	2015-03-13	I would like my children to have the opportunity to attend this school.

Attachment 14

Provide, as Attachment 14, an organizational chart for the proposed school at Year 1 and at Full Capacity. The chart should identify all administrative, operational, instructional and non-instructional personnel, as well as any paraprofessionals or specialty teachers.

This attachment includes multiple organizational and flow charts, the Hillsdale College Agreement, Indiana Charters Agreement, list of staff and advisors from BCSI and Indiana Charters, LLC.

Barney Charter School Initiative Staff and Advisors/Trainers:

Phillip W. Kilgore directs the Barney Charter School Initiative. A Texas native, Mr. Kilgore attended the United States Air Force Academy and graduated in 1984 with a B.S. in American history. He served in the Air Force from 1984 to 1992, primarily as a criminal investigator and counterintelligence officer. Following his service, he worked as a system security engineer and quality manager for AlliedSignal Technical Services Corporation and as a senior management consultant with Accenture National Security Services in Colorado. He has 25 years of experience in project, personnel, and financial management.

Mrs. Rebecca A. Fleming is Assistant Director of the Barney Charter School Initiative. After graduating from Hillsdale College in 2009 with a B.S. in biology, Mrs. Fleming taught at The Vanguard School at Cheyenne Mountain Charter Academy in Colorado Springs for four and a half years. Mrs. Fleming taught seventh grade science and high school biology, and served as chair of the science department and the director of student activities. She has significant experience in curriculum development and charter school environments.

Dr. Daniel B. Coupland is Associate Professor of Education at Hillsdale College. Dr. Coupland earned his bachelor's degree in Spanish from Liberty University, his master's degree in Linguistics from Oakland University, and his doctorate in Education from Michigan State University. Before working in higher education, he was a high school Spanish teacher. At Hillsdale College, he teaches courses on language arts and children's literature. He is the advisor for the Classical Education minor and the Liberal Arts Teacher Apprenticeship. In 2013, the Hillsdale College senior class voted Dr. Coupland "Professor of the Year." His research focuses on English grammar instruction and on the role of teacher education within the liberal arts college. He is currently writing an English grammar curriculum (K-6th grades) with Mrs. Tammy Peters for Classical Academic Press titled *Well-Ordered Language*. Dr. Coupland served for six years on the Board of Directors for the Society for Classical Learning and is the former editor of the Society's *Journal*. He also serves as the associate editor for *Arts and Liberty: A Journal on Liberal Arts and Liberal Education*.

Dr. Justin A. Jackson earned a B.A. and M.A. from the California State University, Fresno, and a Ph.D. in Old and Middle English from Purdue University in 2004. He began teaching at Hillsdale College in 2004 and now holds the faculty rank of associate professor of English. He teaches courses in the Great Books, Old and Middle English Language and Literature, Biblical Narrative and Poetry, Philosophy and Literature, and Dostoevsky. In addition to his teaching responsibilities, he has served as the director of the College's Writing Center since 2008. He received the Purdue University Graduate Student Award for Outstanding Teaching at Purdue University in 2002 and Hillsdale College's Emily Daugherty Award for Teaching Excellence in

2008. He also was named Hillsdale's Professor of the Year in 2011 and was listed in *Princeton Review's Best 300 Professors* in 2012.

Mrs. Dorothy Kardatzke is a veteran K-8 teacher, having taught in both public and private schools. For 10 years, she taught 1st and 2nd grade students, as well as deaf and hard-of-hearing students for 16 years primarily in reading and language education. Mrs. Kardatzke has been a trainer for schools in the Riggs *Writing and Spelling Road to Reading and Thinking* curriculum for over 10 years. She earned her B.A. double-majoring in Deaf Education and Elementary Education at Augustana College, and her Master's degree in Linguistics and Language Development at the University of South Dakota. She has also completed post-graduate coursework in Neuroanatomy.

Dr. Terrence O. Moore is Principal at Atlanta Classical Academy. He earned an A.B. in history from the University of Chicago in 1990 and a Ph.D. in history from the University of Edinburgh in 1999. He taught at Ashland University in Ohio for two years. Dr. Moore also served as a lieutenant in the U.S. Marine Corps from 1990-1993. For seven years he was the principal of Ridgeview Classical Schools, a K-12 charter school in Fort Collins, Colorado whose high schools was twice ranked the number-one public high school in the state. He taught history at Hillsdale College from 2008-2014, and his classes included the core Western and American Heritage courses and upper-level courses in intellectual history, including a course on the Enlightenment and a course on the nature and history of manhood. He received the Emily Daugherty Award for Teaching Excellence at Hillsdale in 2010. Dr. Moore writes frequently on the issues of liberal education, limited government, and traditional manhood and has published articles with *The Claremont Review of Books*, *The Washington Times*, *Human Events*, *Big Government*, *Touchstone*, *The Family in America*, and *The Wall Street Journal*. Dr. Moore is the author of *The Perfect Game*, a novel about real boys growing up in Texas during the Reagan years, and *The Story-Killers: A Common-Sense Case Against the Common Core*, both available on Amazon and at the College's bookstore.

Dr. Thomas Treloar is Associate Professor of Mathematics at Hillsdale College. He received his Ph.D. in Mathematics from the University of Maryland in the area of Differential Geometry. He taught at the University of Arizona and the University of Maryland before coming to Hillsdale College in 2004. In addition to teaching a wide range of classes in the undergraduate mathematics curriculum, he developed the courses *Mathematics and Deductive Reasoning*, *Mathematics and Music*, *the Teaching of Elementary Mathematics*, and *the Teaching of Secondary Mathematics*. His current published research deals with game theoretic dynamics in structured populations, a research area which often overlaps with the fields of economics, biology, and physics. More recently he has been looking at questions involving the analysis of disease spread models in structured populations. Dr. Treloar has been selected as a James Leitzel Fellow through the Project NExT program of the Mathematical Association of America. He serves on the Board of Directors at Will Carleton Academy, a K-12 public charter school here in Hillsdale with a traditional, character-based curriculum based on E.D. Hirsch's *Core Knowledge Sequence*.

Dr. Matthew Young is Associate Professor of Chemistry at Hillsdale College. He earned his B.S. in Chemistry and Philosophy minor from Seattle Pacific University and his Ph.D. in physical chemistry from Northwestern University. He teaches courses on physical chemistry and

introductory chemistry. Dr. Young involves his students in his research program using laser spectroscopy experiments to probe the interactions between pollutant molecules and environmentally relevant surfaces. He was awarded the Emily Daugherty Teaching Award for Teaching Excellence in 2012.

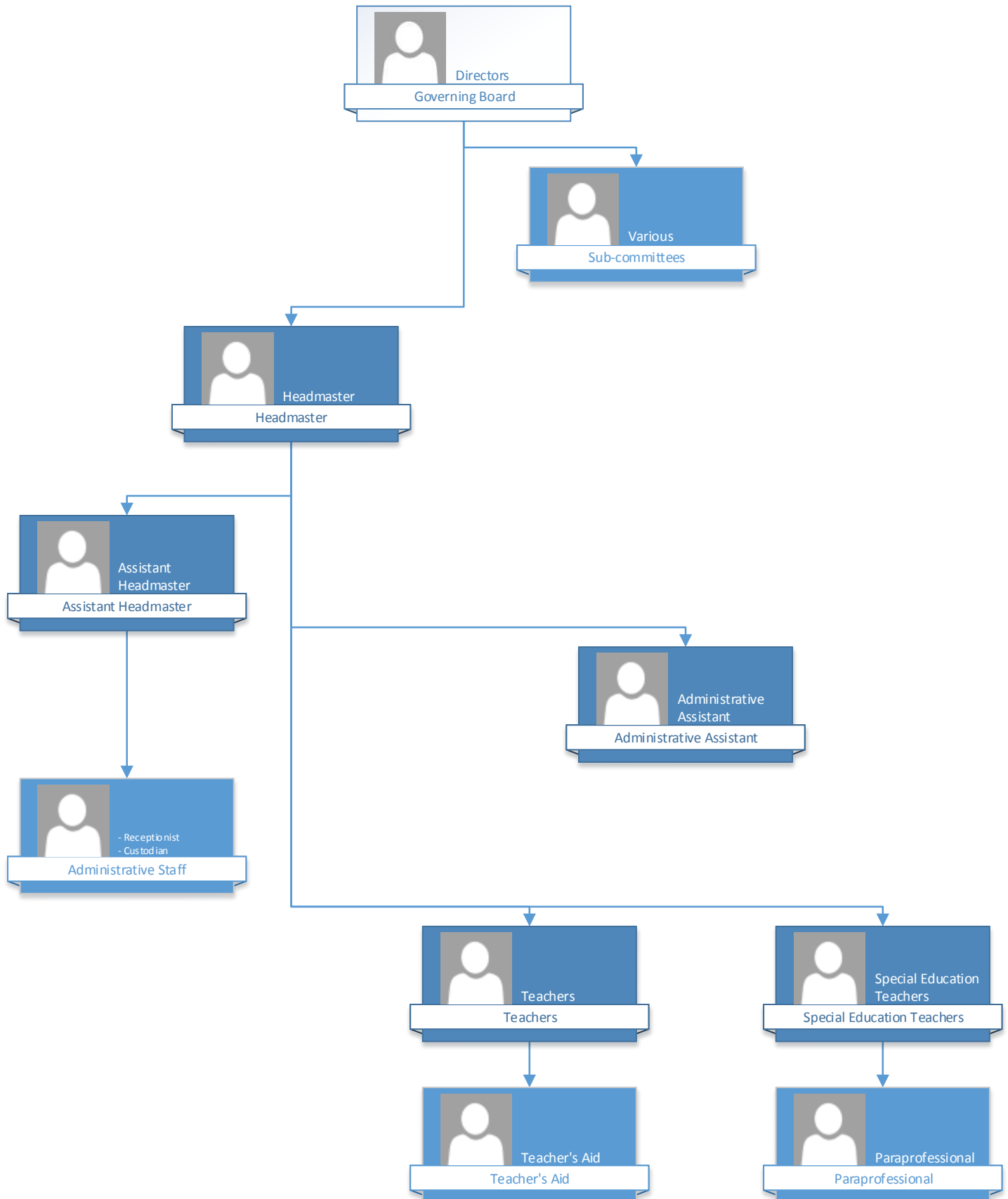
Indiana Charters, LLC staff: Seven Oaks Classical School will partner with a unique educational service provider, Indiana Charters LLC, to provide back office and support services as well as operational knowledge, experience and expertise. The Indiana Charters Seven Oaks team will provide extensive services and support through the first year of operation. These services transition gradually through a teaching and mentoring phase preparing the Seven Oaks staff to operate independently after the third year of operation. Seven Oaks is pleased to be working with Indiana Charters and their transitional management team. We have not included full resumes, since these individuals will not be direct employees; nonetheless, we are confident that the collective experience and expertise of these individuals will help ensure effective and efficient operational practices. The team assigned to work directly with Seven Oaks Classical Academy includes the following:

Kevin L. Davis. Formerly a middle school principal with Carmel-Clay and Speedway Schools, Kevin left traditional public education to co-found one of Indiana's initial 11 charter schools. Options Charter School - Carmel (2002) was created out of a community need to better serve students who were struggling in the traditional public schools in and around Hamilton County. Kevin led Options through expansion and replication opening Options - Noblesville in 2006. As President of the Options Charter Schools, Kevin led the effort to build a highly efficient business infrastructure supporting the unique, personalized, community-assisted alternative high schools. Before founding Indiana Charters, Kevin served as Vice President and COO of the Indiana Public Charter Schools Association. These experiences have given Kevin a unique perspective on the needs of charter operators in this state. Kevin's expertise includes charter school development and management, charter school financing, alternative school instruction, educational technology, school / community connections, charter school board development, and performance management.

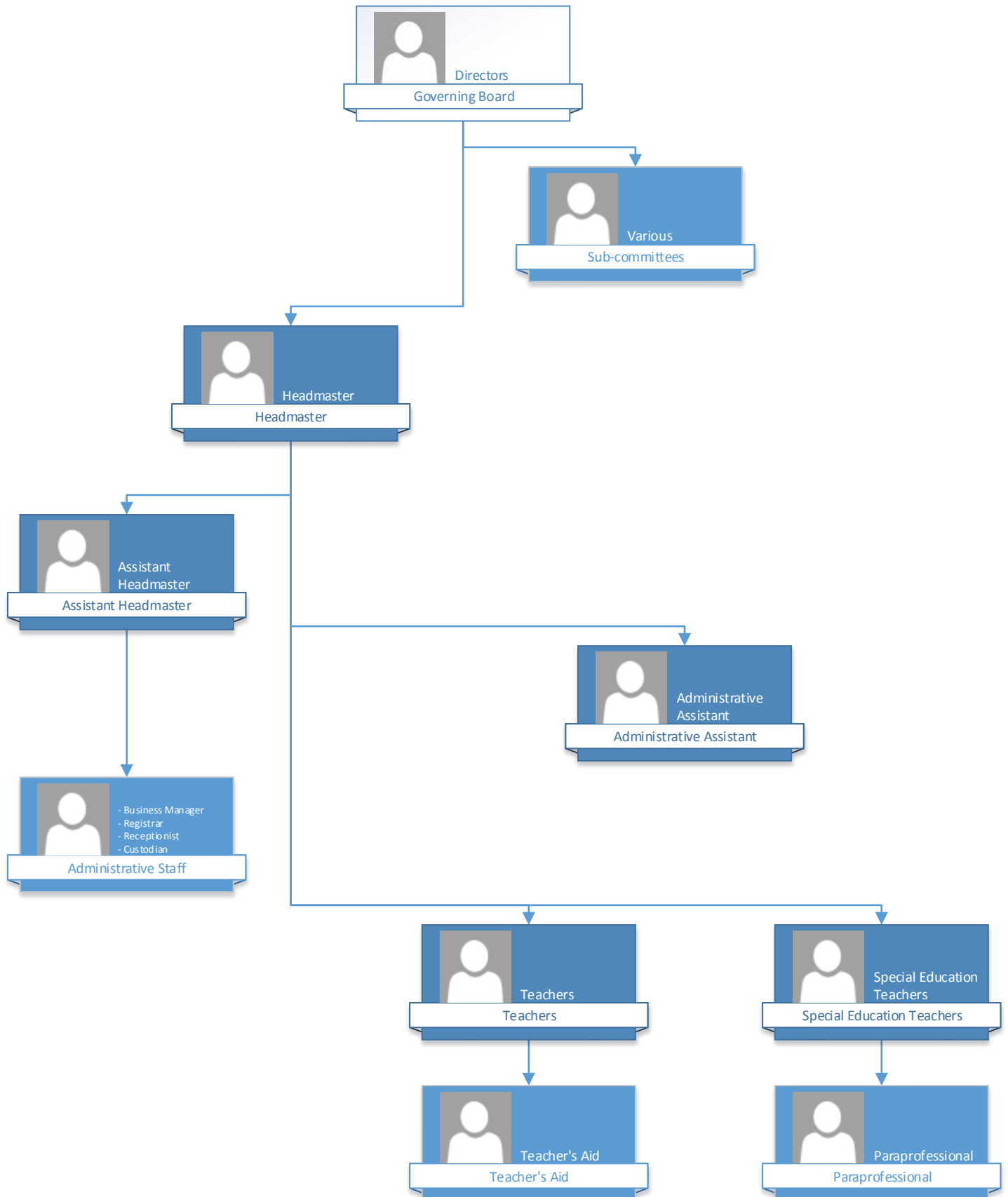
Laurie Serak. Laurie has been working in educational leadership since 1999. A graduate of Butler Universities' elite EPPSP program Laurie has been a school leader in public, private, and charter schools in urban, suburban, and rural areas. Her passion for school choice led her to her most recent post with Ball State University, Office of Charter Schools. Here she worked with schools across the state assuring that they were in compliance to their charter contract in regard to public policy, academics, governance, and finance. These unique experiences have given Laurie insight into every facet of chartering a school from its inception to renewal. Her areas of expertise include understanding the unique position of a charter school authorizer, proposal development, pre-opening requirements, intricacies of charter school contracts, reporting and accountability. Laurie also offers her knowledge of curriculum and instruction in the areas of brain compatible research and best practice, disaggregating data, and differentiating the curriculum. By serving as a chairperson for Advanced Ed., for several years, Laurie has developed a deep understanding of school climate and culture as it applies to positive school outcomes

Brian D. Anderson. Brian has over eighteen years of experience in the charter school community and brings a broad perspective to his role as a business consultant for charter schools and other nonprofits. He spent eleven years in Colorado, providing business services to charter schools and working at the Colorado Department of Education (CDE) in the Schools of Choice Unit. Brian's primary responsibility with CDE was running the Colorado Business Managers Network. After moving to the Midwest to be closer to family, Brian became active in the Indiana charter school community while working for IFF in Chicago, IL. There, he was involved in charter school facility lending in a four-state Midwest region. In Indiana, Brian has experienced charter schools from multiple sides, working with schools and boards on their business needs and working for Ball State University's Office of Charter Schools in a financial oversight capacity.

Year 1



Year 5



Attachment 15

Start-Up Plan. Provide, as Attachment 15, a detailed start-up plan for the period leading up to the school's first day of student attendance. **NOTE: Limit attachment to ten (10) pages.**

a. The Start-Up Plan must indicate the targeted first day (month, day, year) of student attendance.

b. The Start-Up Plan must specify planning tasks by month, and responsible individuals.

Month	Activity	Responsible Parties
Aug-15	Board Meeting/Committee Meetings	Board of Directors
	Submit proposal to Grace College	Board of Directors
Sep-15	Board Meeting/Committee Meetings	Board of Directors
	Public hearing	Grace College
	Continue steps toward building acquisition	Board of Directors
	Authorization decision, Grace College	Grace College
Oct-15	Board Meeting/Committee Meetings	Board of Directors
	Begin building acquisition plans	Board of Directors
	Begin contract negotiations with Indiana Charters LLC	Board of Directors
	Complete CSP Application	Board of Directors
Nov-15	Begin architectural plans	Board of Directors/OMS
	Develop recruitment, marketing and outreach plan for new students	Indiana Charters / Board
	Board Meeting/Committee Meetings	Board of Directors
	Develop review / modify student handbook	Indiana Charters / Board
	Organize community presentations	Board of Directors
	Review current budget development and oversight policies	Indiana Charters
	Obtain zoning and building permits as needed	Board of Directors
	Continue Headmaster/Assistant Headmaster Search	Board of Directors
	Community Presentation	Board of Directors
15-Dec	Plan student recruitment strategy	Board of Directors/Indiana Charters
	Begin Selection of Headmaster	Board of Directors

	Board Meeting/Committee Meetings	Board of Directors
	Community Presentation	Board of Directors
	Plan student recruitment strategy	Board of Directors/Indiana Charters
	Research vendors	Indiana Charters / Board of Directors
	Write and design initial information materials (brochures, general info sheet, Q&A Sheets, etc	Indiana Charters /Board of Directors
	Continue architectural plans	Board of Directors/OMS
Jan-16	Begin site renovation	Board of Directors
	Identify additional community liaisons	Board of Directors
	Print and distribute information/brochures	Board of Directors
	Community presentation	Board of Directors
	Select Headmaster	Board of Directors/Hillsdale College
	Open Enrollment Period	Board of Directors/Headmaster
Feb-16	Enrollment Lottery	Headmaster/Board of Directors
	Revise and expand comprehensive school accountability plan, if necessary	Headmaster / Indiana Charters/Board of Directors
	Plan for classroom/learning environment configuration	Headmaster
	Classical School Job Fair	Board of Directors/Headmaster
	Community presentation	Board of Directors
	Full implementation of accounting system	Board of Directors/Headmaster/Indiana Charters
	Develop new staff selection process	Headmaster/Board of Directors/Hillsdale College
Mar-16	Begin recruitment for Enrollment	Headmaster / Indiana Charters
	Community presentation	Headmaster/Hillsdale College
	Begin sending monthly updates to parents and prospective students on a monthly basis	Headmaster
	Begin Teacher selection	Headmaster/Board/Hillsdale College
	Review and update Board policies	Indiana Charters / Board of Directors
	Analyze student enrollment progress and adjust marketing strategies as needed	Indiana Charters / Board of Directors

Apr-16	Complete school renovation	Board of Directors
	Community presentation	Headmaster
	Select student information system	Board of Directors
	Accept and review applications in accordance with open enrollment	Headmaster/ Indiana Charters
	Recruit additional board members for Governing Board	Board of Directors
	Analyze student enrollment progress and adjust marketing strategies as needed	Indiana Charters / Board of Directors
	Continue Teacher Selection	Headmaster/Board/Hillsdale College
May-16	Finalize job descriptions for Advisors and other school staff.	Headmaster
	Hold first open house	Headmaster
	Implement student information system for enrollment and scheduling	Indiana Charters
	Develop Emergency Plan	Indiana Charters
	Develop severe weather / school closing notification plan	Indiana Charters / Headmaster
	Accept and review applications/hold lottery if necessary	Headmaster/ Indiana Charters
	Analyze student enrollment progress and adjust marketing strategies as needed	Indiana Charters / Board of Directors
Jun-16	Board training seminar - transition to operational board	Board of Directors/Indiana Charters
	Identify students whose applications indicated IEP's	Indiana Charters
	Hold open house	Headmaster
	Obtain health, safety and occupation permits as required by law	Board of Directors
	Complete staff hiring / HR processes	Board of Directors
	Analyze student enrollment progress and adjust marketing strategies as needed	Indiana Charters / Board of Directors
	Charter School Seminar - Hillsdale College	Headmaster
Jul-16	Arrange classrooms/instructional & work environments	Headmaster
	Secure all inspections for fire, safety and other	Indiana Charters / Board

	codes	
	Establish Year 1 staff development plan including para-professionals	Headmaster
	Conduct enrollment lottery if applications exceed space	Headmaster
	Research and recommend auditing options	Indiana Charters / Board
	Begin conducting move-in conferences for students with IEP's	Indiana Charters / Special Ed. Director
	Hillsdale College staff training	Headmaster
	Develop long-term fiscal plans	Indiana Charters / Board
	Hold open house	Headmaster
	Devise plans for serving special education students	Indiana Charters / Special Education Director
Aug-16	Hillsdale College staff training	Headmaster
	Provide orientation for new faculty and staff	Headmaster / Indiana Charters
	Advise staff on legal and regulatory compliance	Indiana Charters
	Continue move-in conferences for students with IEP's	Indiana Charters / Special Ed. Director
	Conduct Family/Student Orientation	Headmaster
	Provide on-site teacher preparation	Headmaster
	Provide training to staff regarding special needs students	Indiana Charters / Special Ed. Director
	First day of school (August 15)	ALL

Attachment 16

Insurance Coverage. Authorized charter schools will be required to indemnify the Grace College, the Indiana Department of Education, any related entities, and their respective members, officers, employees, officials and agents. In addition, charter schools must obtain liability insurance coverage naming the authorizer and the Indiana Department of Education as Additional Insured on a primary basis. The applicant should provide, as Attachment 16, an estimate from an insurance agent/broker for insurance coverage that aligns with insurance requirements.

**ISU Insurance Services
Mayfield Agency**

Independently Owned & Operated

August 5, 2014

Mr. Matt Wolf
Seven Oaks Classical School
PO Box 7287
Bloomington, IN 47407

Re: Charter School Insurance Estimate for ICSB Application

Dear Matt,

Based on the exposure information you provided to us, our firm's experience with other Charter Schools, and a conversation with underwriting, I can provide you with the following insurance cost estimate for your planning purposes. This estimate was received from Liberty Mutual Insurance. Please note that this is not to be interpreted as a bindable quote and actual terms and conditions will be arrived at through the application and underwriting process. The intent of this letter is to provide an indication only for your planning and approval purposes. Again, coverage cannot be bound based on these premium estimates.

Commercial Package (Including Property, Inland Marine, General Liability, School Leader's Errors and Omissions, Sexual Abuse and Molestation, Non-Owned and Hired Auto, Employee Benefits Liability).

Estimated Annual Premium: \$16,500

\$4,000,000 Umbrella Policy

Estimated Annual Premium: \$ 4,000

Workers Compensation

Estimated Annual Premium: \$ 5,500

Hopefully, these indications provide you the information you need to complete your budget and Charter application. Should you require an actual quote in the future, please let me know and we can begin the application process.

Sincerely,



Ken Rhoden
317-831-3575
317-831-1914 (Fax)
krhoden@mayfieldinsurance.com



50 S. Madison St.
Mooresville, IN 46158

"SERVING YOUR INSURANCE NEEDS SINCE 1921"
www.mayfieldinsurance.com



Telephone 317.831.3575
Fax 317.831.1914



SCHOOL ENROLLMENT PROJECTIONS

[illegible]

Seven Oaks Classical School Budget Pro Forma

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
REVENUE						
State Revenue						
Basic Grant		\$ 2,573,705	\$ 3,099,168	\$ 3,460,221	\$ 3,831,408	\$ 4,212,953
State Matching Funds for School Lunch Program		\$ -	\$ -	\$ -	\$ -	\$ -
Professional Development		\$ -	\$ -	\$ -	\$ -	\$ -
Technology Grants		\$ -	\$ -	\$ -	\$ -	\$ -
Remediation Program		\$ -	\$ -	\$ -	\$ -	\$ -
Gifted and Talented Program		\$ -	\$ -	\$ -	\$ -	\$ -
Textbook Reimbursement		\$ 8,878	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000
Summer School		\$ -	\$ -	\$ -	\$ -	\$ -
State Charter Grant (\$500/pupil)		\$ 229,500	\$ 270,000	\$ 297,000	\$ 324,000	\$ 351,000
Other State Revenue (please describe)		\$ -	\$ -	\$ -	\$ -	\$ -
Total State Revenue	\$ -	\$ 2,812,083	\$ 3,378,168	\$ 3,766,221	\$ 4,164,408	\$ 4,572,953
Federal Revenue						
Public Charter School Program (PCSP) Grant	\$ 180,000	\$ 240,000	\$ 240,000	\$ -	\$ -	\$ -
Facilities Assistance Program Grant		\$ -	\$ -			
Public Law 101-476 (IDEA)		\$ 65,000	\$ 70,000	\$ 75,000	\$ 75,000	\$ 79,000
Title I		\$ 48,195	\$ 56,700	\$ 62,370	\$ 62,370	\$ 43,740
Title II		\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Federal Lunch Program		\$ 86,173	\$ 101,380	\$ 111,518	\$ 121,656	\$ 131,793
Federal Breakfast Reimbursement		\$ 46,846	\$ 55,112	\$ 60,624	\$ 66,135	\$ 71,646
Total Federal Revenue	\$ 180,000	\$ 489,213	\$ 526,192	\$ 312,511	\$ 328,160	\$ 329,180
Other Revenues						
Committed Philanthropic Donations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Before and After Care Fees		\$ -	\$ -	\$ -	\$ -	\$ -
Interest Income		\$ -	\$ -	\$ -	\$ -	\$ -
Student Fees/Consumables \$175/student @ 50% Collection		\$ 40,163	\$ 47,250	\$ 51,975	\$ 51,975	\$ 61,425
Student Lunch	\$ -	\$ 160,035	\$ 188,276	\$ 207,104	\$ 225,932	\$ 244,759
Lease of Unused Facility Space	\$ 68,000	\$ 120,000	\$ 72,000	\$ 48,000	\$ 24,000	\$ 24,000
Total Other Revenue	\$ 68,000	\$ 320,197	\$ 307,526	\$ 307,079	\$ 301,907	\$ 330,184
Total Revenue	\$ 248,000	\$ 3,621,493	\$ 4,211,886	\$ 4,385,811	\$ 4,794,476	\$ 5,232,317
EXPENDITURES						
Personnel Expenses						
Wages, Benefits and Payroll Taxes	\$ 50,115	\$ 1,880,604	\$ 2,067,949	\$ 2,399,160	\$ 2,629,679	\$ 2,848,080
Substitute Teachers		\$ 37,612	\$ 34,842	\$ 40,851	\$ 43,836	\$ 48,029
Professional Development	\$ -	\$ 19,000	\$ 20,000	\$ 22,750	\$ 24,500	\$ 26,000
Bonuses		\$ 50,000	\$ 60,000	\$ 70,000	\$ 80,000	\$ 90,000
Total Personnel Expenses	\$ 50,115	\$ 1,987,216	\$ 2,182,791	\$ 2,532,761	\$ 2,778,015	\$ 3,012,109
Instructional Supplies and Resources						
Textbooks	\$ -	\$ 68,850	\$ 81,000	\$ 89,100	\$ 97,200	\$ 105,300
Library, periodicals, etc.	\$ -	\$ 9,180	\$ 10,800	\$ 11,880	\$ 12,960	\$ 14,040
Technology	\$ -	\$ 60,000	\$ 60,000	\$ 10,000	\$ 10,000	\$ 10,000
Assessment materials	\$ -	\$ 9,180	\$ 10,800	\$ 11,880	\$ 9,720	\$ 14,040
Computers	\$ -	\$ 55,080	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Software	\$ -	\$ 6,885	\$ 8,100	\$ 8,910	\$ 9,720	\$ 10,530
Other classroom supplies	\$ 2,000	\$ 22,950	\$ 27,000	\$ 29,700	\$ 32,400	\$ 35,100

Field trips, other unclassified items	\$ -	\$ 11,475	\$ 13,500	\$ 14,850	\$ 16,200	\$ 17,550
Co-curricular & Athletics	\$ -	\$ 2,295	\$ 2,700	\$ 2,970	\$ 3,240	\$ 3,510
Total Instructional Supplies and Resources	\$ 2,000	\$ 245,895	\$ 233,900	\$ 199,290	\$ 211,440	\$ 230,070
Support Supplies and Resources						
Administrative Computers	\$ 4,000	\$ 6,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
Administrative Software	\$ 500	\$ 3,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Administration Dues, fees, misc. expenses	\$ -	\$ 4,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Office supplies	\$ 1,000	\$ 9,180	\$ 10,800	\$ 11,880	\$ 12,960	\$ 14,040
Total Support Supplies and Resources	\$ 5,500	\$ 22,180	\$ 14,800	\$ 15,880	\$ 16,960	\$ 18,040
Board Expenses						
Charter Board Services, including Board Training, retreats	\$ 1,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Charter Board Supplies & Equipment	\$ 250	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
Charter Board Dues, fees, etc.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Board Expenses	\$ 1,250	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000
Professional Purchased or Contracted Services						
Legal Services	\$ -	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Audit Services (compliant with SBOA requirements)	\$ -	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500
Payroll Services	\$ 1,300	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Accounting Services	\$ 6,000	\$ 40,000	\$ 30,000	\$ 12,000	\$ 12,000	\$ 12,000
Printing/Newsletter/Annual Report Services	\$ -	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Consultants	\$ 25,000	\$ 50,000	\$ 40,000	\$ 25,000	\$ 15,000	\$ 10,000
Internet Services	\$ -	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Telephone/Telecommunication Services	\$ -	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000
Total Insurance Costs (per requirements detailed in charter school application)	\$ -	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000	\$ 26,000
Travel	\$ -	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Postage	\$ -	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
Special Education Services	\$ 7,500	\$ 25,000	\$ 20,000	\$ 10,000	\$ 10,000	\$ 10,000
Student Information Services	\$ -	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Food service	\$ -	\$ 293,053	\$ 344,768	\$ 379,245	\$ 413,722	\$ 448,199
Transportation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Nursing Services	\$ -	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Total Professional Purchased or Contracted Services	\$ 39,800	\$ 533,053	\$ 559,768	\$ 551,245	\$ 575,722	\$ 605,199
Facilities						
Rent, mortgage, or other facility cost	\$ 59,310	\$ 118,619	\$ 118,619	\$ 118,619	\$ 118,619	\$ 118,619
Furniture & Equipment	\$ 20,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Gas/electric	\$ 30,000	\$ 72,000	\$ 75,600	\$ 79,380	\$ 83,349	\$ 87,516
Water/Sewer	\$ 3,000	\$ 6,000	\$ 6,300	\$ 6,615	\$ 6,946	\$ 7,293
Grounds Keeping	\$ 9,000	\$ 24,000	\$ 25,200	\$ 26,460	\$ 27,783	\$ 29,172
Maintenance Services	\$ 6,000	\$ 12,000	\$ 12,600	\$ 13,230	\$ 13,892	\$ 14,586
Custodial	\$ -	\$ 5,000	\$ 5,250	\$ 5,513	\$ 5,788	\$ 6,078
Waste disposal	\$ -	\$ 6,000	\$ 6,300	\$ 6,615	\$ 6,946	\$ 7,293
Debt Service for Facilities (Interest Only)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Facilities	\$ 127,310	\$ 268,619	\$ 274,869	\$ 281,432	\$ 288,322	\$ 295,557
Other						
Contingency	\$ -	\$ 257,370	\$ 309,917	\$ 276,818	\$ 306,513	\$ 337,036
Grace College Administrative Fee	\$ -	\$ 77,211	\$ 92,975	\$ 103,807	\$ 114,942	\$ 126,389

CMO/EMO Fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Common School Fund Loan Interest Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ 22,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Uniform Assistance	\$ -	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Facility Fund	\$ -	\$ 190,000	\$ 500,000	\$ 350,000	\$ 450,000	\$ 500,000
Total Other	\$ 22,000	\$ 549,582	\$ 932,892	\$ 760,624	\$ 901,455	\$ 993,425
Total Expenditures	\$ 247,975	\$ 3,613,545	\$ 4,206,021	\$ 4,348,232	\$ 4,778,914	\$ 5,161,400
Carryover/Deficit	\$ 25	\$ 7,949	\$ 5,866	\$ 37,579	\$ 15,561	\$ 70,917
Cumulative Carryover/(Deficit)	\$ 25	\$ 7,974	\$ 13,840	\$ 51,419	\$ 66,980	\$ 137,897

[illegible]

	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	TOTAL 2015	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	TOTAL FIRST HALF 2016
Total Insurance Costs (per requirements detailed in charter school application)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Special Education Services	-	-	-	-	-	-	-	-	-	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	7,500.00
Student Information Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food service	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursing Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Professional Purchased or Contracted Services	-	-	-	-	-	-	-	-	-	7,700.00	8,025.00	8,025.00	8,025.00	8,025.00	39,800.00
Facilities															
Rent, mortgage, or other facility cost	-	-	-	-	-	-	-	-	9,884.92	9,884.92	9,884.92	9,884.92	9,884.92	9,884.92	59,309.52
Furniture & Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	20,000.00	20,000.00
Gas/electric	-	-	-	-	-	-	-	-	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	30,000.00
Water/ Sewer	-	-	-	-	-	-	-	-	500.00	500.00	500.00	500.00	500.00	500.00	3,000.00
Grounds Keeping	-	-	-	-	-	-	-	-	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	9,000.00
Maintenance Services	-	-	-	-	-	-	-	-	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	6,000.00
Custodial	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste disposal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Service for Facilities (Interest Only)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Facilities	-	-	-	-	-	-	-	-	17,884.92	17,884.92	17,884.92	17,884.92	17,884.92	37,884.92	127,309.52
Other															
Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Administrative Fee (0% in Year 0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMO/EMO Fee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marketing and Public Relations	-	-	-	-	-	-	-	-	5,000.00	5,000.00	5,000.00	5,000.00	1,000.00	1,000.00	22,000.00
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (please describe)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other	-	-	-	-	-	-	-	-	5,000.00	5,000.00	5,000.00	5,000.00	1,000.00	1,000.00	22,000.00
Total Expenditures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,885	\$ 45,358	\$ 41,183	\$ 42,183	\$ 38,183	\$ 58,183	\$ 247,975
Net Income (Pre-Cash Flow Adjustments)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,000	\$ 180,000	\$ (8,885)	\$ (31,358)	\$ (31,183)	\$ (32,183)	\$ (28,183)	\$ (48,183)	\$ (179,975)
CASH FLOW ADJUSTMENTS															
OPERATING ACTIVITIES															
Example - Add Back Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Expected New School Annual Operating Budget -- YEAR 1 -- Fiscal Year July 1-June 30		
REVENUE	Amount	Notes
State Revenue		
Basic Grant	\$ 2,573,705	
State Matching Funds for School Lunch Program	\$ -	
Professional Development	\$ -	
Technology Grants	\$ -	
Remediation Program	\$ -	
Gifted and Talented Program	\$ -	
Textbook Reimbursement	\$ 8,878	
Summer School	\$ -	
State Charter Grant (\$500/pupil)	\$ 229,500	
Other State Revenue (please describe)		
Federal Revenue		
		NOTE: This is a competitive grant for planning & implementation. Funding is not guaranteed. The funding for the PCSP grant is distributed through a reimbursement process. Contact Jeff Barber at the IDOE with questions. (\$240,000 is the average amount received by charter schools in years 1 and 2)
Public Charter School Program (PCSP) Grant	\$ 240,000	
Charter School Facilities Assistance Program Grant	\$ -	
Public Law 101-476 (IDEA)	\$ 65,000	
Title I	\$ 48,195	
Title II	\$ 3,000	
Federal Lunch Program	\$ 86,173	\$2.98 per lunch * 180 school day * free and reduced lunch students
Federal Breakfast Reimbursement	\$ 46,846	\$1.62 per breakfast * 180 school day * free and reduced lunch students
Other Revenue Federal sources (please describe)		
Other Revenues		
Committed Philanthropic Donations	\$ -	
Before and After Care Fees	\$ -	
Interest Income	\$ -	
Student Fees/Consumables \$175/student @ 50% Collection	\$ 40,163	\$175 fee/student at collection rate of 50%
Student Lunch	\$ 160,035	Revenue from paid lunch
		The facility currently generates about 14,000/mo in revenue, the amount of available space to lease will shrink immediately. The estimated revenue in year one is \$10,000 with additional annual reductions in following years.
Lease of Unused Facility Space	\$ 120,000	
Other (please describe)		
Total Revenue	\$ 3,621,493	
EXPENDITURES		
Personnel Expenses		
Wages, Benefits and Payroll Taxes	\$ 1,880,604	Use staffing workbook
Substitute Teachers	\$ 37,612	2% of teacher salaries
		\$500 per employee per year, most development provided by Hillsdale College at no cost
Professional Development	\$ 19,000	
Bonuses	\$ 50,000	
Other (please describe)		
Total Personnel Expenses	\$ 1,987,216	
Instructional Supplies and Resources		
Textbooks	\$ 68,850	\$150 per student
Library, periodicals, etc	\$ 9,180	\$20 per student
		projectors, printers, etc, \$60,000 in years 1 and 2, \$10,000 in subsequent years for maintenance / replacement
Technology	\$ 60,000	
Assessment materials	\$ 9,180	\$20 per student
		One computer per 5 students @ \$600 per computer in year 1, \$20,000 per year in subsequent years
Computers	\$ 55,080	
Software	\$ 6,885	\$15 per student
Other classroom supplies	\$ 22,950	\$50 per student
Field trips, other unclassified items	\$ 11,475	\$25 per student
Co-curricular & Athletics	\$ 2,295	\$5 per student
Other (please describe)		
Total Instructional Supplies and Resources	\$ 245,895	
Support Supplies and Resources		
		\$6,000 in year 1, \$2,000 for replacement/maintenance in subsequent years
Administrative Computers	\$ 6,000	
Administrative Software	\$ 3,000	\$3,000 in year 1, \$1,000 in subsequent years
Administration Dues, fees, misc expenses	\$ 4,000	\$4,000 in year 1, \$1,000 in subsequent years
Office supplies	\$ 9,180	\$20 per student
Other (please describe)		
Total Support Supplies and Resources	\$ 22,180	

Board Expenses		
Charter Board Services, including Board Training, retreats	\$ 5,000	\$5,000 for annual retreat/conference
Charter Board Supplies & Equipment	\$ 2,000	\$2,000 annually
Charter Board Dues, fees, etc	\$ -	
Other (please describe)		
Total Board Expenses	\$ 7,000	
Professional Purchased or Contracted Services		
Legal Services	\$ 2,500	
Audit Services (compliant with SBOA requirements)	\$ 7,500	
Payroll Services	\$ 5,000	
Accounting Services	\$ 40,000	
Printing/Newsletter/Annual Report Services	\$ 12,000	
Consultants	\$ 50,000	
Internet Services	\$ 12,000	
Telephone/Telecommunication Services	\$ 9,000	
Total Insurance Costs (per requirements detailed in charter school application)	\$ 26,000	
Travel	\$ 15,000	
Postage	\$ 6,000	
Special Education Services	\$ 25,000	
Student Information Services	\$ 20,000	
Food service	\$ 293,053	Cost of providing lunch to all students and breakfast for free and reduced lunch students
Transportation	\$ -	
Nursing Services	\$ 10,000	
Other (please describe)		
Total Professional Purchased or Contracted Services	\$ 533,053	
Facilities		
Rent, mortgage, or other facility cost	\$ 118,619	Based on Ellettsville Location, see Budget Assumptions Tab
Furniture & Equipment	\$ 25,000	25,000/year
Gas/electric	\$ 72,000	Projected 5% Annual Increase on Utilites
Water/ Sewer	\$ 6,000	
Grounds Keeping	\$ 24,000	
Maintenance Services	\$ 12,000	
Custodial	\$ 5,000	
Waste disposal	\$ 6,000	
Debt Service for Facilities (Interest Only)	\$ -	
Other (please describe)		
Total Facilities	\$ 268,619	
Other		
Contingency	\$ 257,370	10% of basic grant in year 1 & 2, 8% after.
Grace College Administrative Fee	\$ 77,211	Assume 3% of Basic Grant (Row 6)
CMO/EMO Fee	\$ -	
Common School Fund Loan Interest Costs	\$ -	
Marketing	\$ 20,000	
Uniform Assistance Program	\$ 10,000	To assist families with the cost of uniforms.
Facility fund	\$ 185,000	
Total Other	\$ 549,582	
Total Expenditures	\$ 3,613,545	
Carryover/Deficit	\$ 7,949	

Cumulative Carryover/(Deficit) \$ 7,974

Expected New School Annual Operating Budget -- YEAR 2 -- Fiscal Year July 1-June 30		
REVENUE	Amount	Notes
State Revenue		
Basic Grant	\$ 3,099,168	
State Matching Funds for School Lunch Program	\$ -	
Professional Development	\$ -	
Technology Grants	\$ -	
Remediation Program	\$ -	
Gifted and Talented Program	\$ -	
Textbook Reimbursement	\$ 9,000	
Summer School	\$ -	
State Charter Grant (\$500/pupil)	\$ 270,000	
Other State Revenue (please describe)		
Federal Revenue		
		NOTE: This is a competitive grant for planning & implementation. Funding is not guaranteed. The funding for the PCSP grant is distributed through a reimbursement process. Contact Jeff Barber at the IDOE with questions. (\$240,000 is the average amount received by charter schools in years 1 and 2)
Public Charter School Program (PCSP) Grant	\$ 240,000	
Charter School Facilities Assistance Program Grant	\$ -	
Public Law 101-476 (IDEA)	\$ 70,000	
Title I	\$ 56,700	
Title II	\$ 3,000	
Federal Lunch Program	\$ 101,380	\$2.98 per lunch * 180 school day * free and reduced lunch students
Federal Breakfast Reimbursement	\$ 55,112	\$1.62 per breakfast * 180 school day * free and reduced lunch students
Other Revenue Federal sources (please describe)		
Other Revenues		
Committed Philanthropic Donations	\$ -	
Before and After Care Fees	\$ -	
Interest Income	\$ -	
Student Fees/Consumables \$175/student @ 50% Collection	\$ 47,250	\$175 fee/student at collection rate of 50%
Student Lunch	\$ 188,276	Revenue from paid lunch
Lease of Unused Facility Space	\$ 72,000	See Budget Assumptions
Other (please describe)		
Total Revenue	\$ 4,211,886	
EXPENDITURES		
Personnel Expenses		
Wages, Benefits and Payroll Taxes	\$ 2,067,949	Use staffing workbook
Substitute Teachers	\$ 34,842	2% of teacher salaries
Professional Development	\$ 20,000	\$500 per employee per year, most development provided by Hillsdale at no cost
Bonuses	\$ 60,000	
Other (please describe)		
Total Personnel Expenses	\$ 2,182,791	
Instructional Supplies and Resources		
Textbooks	\$ 81,000	\$150 per student
Library, periodicals, etc	\$ 10,800	\$20 per student
Technology	\$ 60,000	projectors, printers, etc, \$60,000 in years 1 and 2, \$10,000 in subsequent years for maintenance / replacement
Assessment materials	\$ 10,800	\$20 per student
Computers	\$ 20,000	One computer per 5 students @ \$600 per computer in year 1, \$20,000 per year in subsequent years
Software	\$ 8,100	\$15 per student
Other classroom supplies	\$ 27,000	\$50 per student
Field trips, other unclassified items	\$ 13,500	\$25 per student
Co-curricular & Athletics	\$ 2,700	\$5 per student
Other (please describe)		
Total Instructional Supplies and Resources	\$ 233,900	

Support Supplies and Resources		
Administrative Computers	\$ 2,000	\$6,000 in year 1, \$2,000 for replacement/maintenance in subsequent years
Administrative Software	\$ 1,000	\$3,000 in year 1, \$1,000 in subsequent years
Administration Dues, fees, misc expenses	\$ 1,000	\$4,000 in year 1, \$1,000 in subsequent years
Office supplies	\$ 10,800	\$20 per student
Other (please describe)		
Total Support Supplies and Resources	\$ 14,800	
Board Expenses		
Charter Board Services, including Board Training, retreats	\$ 5,000	\$5,000 for annual retreat/conference
Charter Board Supplies & Equipment	\$ 2,000	\$2,000 annually
Charter Board Dues, fees, etc	\$ -	
Other (please describe)		
Total Board Expenses	\$ 7,000	
Professional Purchased or Contracted Services		
Legal Services	\$ 2,500	
Audit Services (compliant with SBOA requirements)	\$ 7,500	
Payroll Services	\$ 5,000	
Accounting Services	\$ 30,000	
Printing/Newsletter/Annual Report Services	\$ 12,000	
Consultants	\$ 40,000	
Internet Services	\$ 12,000	
Telephone/Telecommunication Services	\$ 9,000	
Total Insurance Costs (per requirements detailed in charter school application)	\$ 26,000	
Travel	\$ 15,000	
Postage	\$ 6,000	
Special Education Services	\$ 20,000	
Student Information Services	\$ 20,000	
Food service	\$ 344,768	Cost of providing lunch to all students and breakfast for free and reduced lunch students
Transportation	\$ -	
Nursing Services	\$ 10,000	
Other (please describe)		
Total Professional Purchased or Contracted Services	\$ 559,768	
Facilities		
Rent, mortgage, or other facility cost	\$ 118,619	Based on Ellettsville Location, see Budget Assumptions Tab
Furniture & Equipment	\$ 25,000	
Gas/electric	\$ 75,600	Projected 5% Annual Increase on Utilities
Water/ Sewer	\$ 6,300	
Grounds Keeping	\$ 25,200	
Maintenance Services	\$ 12,600	
Custodial	\$ 5,250	
Waste disposal	\$ 6,300	
Debt Service for Facilities (Interest Only)	\$ -	
Other (please describe)		
Total Facilities	\$ 274,869	
Other		
Contingency	\$ 309,917	10% of basic grant in year 1 & 2, 8% after.
Grace College Administrative Fee	\$ 92,975	Assume 3% of Basic Grant (Row 6)
CMO/EMO Fee	\$ -	
Common School Fund Loan Interest Costs	\$ -	
Marketing	\$ 20,000	20000 annually
Uniform Assistance Program	\$ 10,000	To assist families with the cost of uniforms.
Facility Fund	\$ 500,000	
Total Other	\$ 932,892	
Total Expenditures	\$ 4,206,021	
Carryover/Deficit	\$ 5,866	

Cumulative Carryover/(Deficit) \$ 13,840

Expected New School Annual Operating Budget -- YEAR 3 -- Fiscal Year July 1-June 30		
REVENUE	Amount	Notes
State Revenue		
Basic Grant	\$ 3,460,221	
State Matching Funds for School Lunch Program	\$ -	
Professional Development	\$ -	
Technology Grants	\$ -	
Remediation Program	\$ -	
Gifted and Talented Program	\$ -	
Textbook Reimbursement	\$ 9,000	
Summer School	\$ -	
State Charter Grant (\$500/pupil)	\$ 297,000	
Other State Revenue (please describe)		
Federal Revenue		
Public Law 101-476 (IDEA)	\$ 75,000	
Title I	\$ 62,370	
Title II	\$ 3,000	
Federal Lunch Program	\$ 111,518	\$2.98 per lunch * 180 school day * free and reduced lunch students
Federal Breakfast Reimbursement	\$ 60,624	\$1.62 per breakfast * 180 school day * free and reduced lunch students
Other Revenue Federal sources (please describe)		
Other Revenues		
Committed Philanthropic Donations	\$ -	
Before and After Care Fees	\$ -	
Interest Income	\$ -	
Student Fees/Consumables \$175/student @ 50% Collection	\$ 51,975	\$175 fee/student at collection rate of 50%
Student Lunch	\$ 207,104	Revenue from paid lunch
Lease of Unused Facility Space	\$ 48,000	See Budget Assumptions
Other (please describe)		
Total Revenue	\$ 4,385,811	
EXPENDITURES		
Personnel Expenses		
Wages, Benefits and Payroll Taxes	\$ 2,399,160	Use staffing workbook
Substitute Teachers	\$ 40,851	2% of teacher salaries
Professional Development	\$ 22,750	\$500 per employee per year, most development provided by Hillsdale at no cost
Bonuses	\$ 70,000	
Other (please describe)		
Total Personnel Expenses	\$ 2,532,761	
Instructional Supplies and Resources		
Textbooks	\$ 89,100	\$150 per student
Library, periodicals, etc	\$ 11,880	\$20 per student
Technology	\$ 10,000	projectors, printers, etc, \$60,000 in years 1 and 2, \$10,000 in subsequent years for maintenance / replacement
Assessment materials	\$ 11,880	\$20 per student
Computers	\$ 20,000	One computer per 5 students @ \$600 per computer in year 1, \$20,000 per year in subsequent years
Software	\$ 8,910	\$15 per student
Other classroom supplies	\$ 29,700	\$50 per student
Field trips, other unclassified items	\$ 14,850	\$25 per student
Co-curricular & Athletics	\$ 2,970	\$5 per student
Other (please describe)		
Total Instructional Supplies and Resources	\$ 199,290	
Support Supplies and Resources		
Administrative Computers	\$ 2,000	\$6,000 in year 1, \$2,000 for replacement/maintenance in subsequent years
Administrative Software	\$ 1,000	\$3,000 in year 1, \$1,000 in subsequent years
Administration Dues, fees, misc expenses	\$ 1,000	\$4,000 in year 1, \$1,000 in subsequent years
Office supplies	\$ 11,880	\$20 per student
Other (please describe)		
Total Support Supplies and Resources	\$ 15,880	

Board Expenses		
Charter Board Services, including Board Training, retreats	\$ 5,000	\$5,000 for annual retreat/conference
Charter Board Supplies & Equipment	\$ 2,000	\$2,000 annually
Charter Board Dues, fees, etc		
Other (please describe)		
Total Board Expenses	\$ 7,000	
Professional Purchased or Contracted Services		
Legal Services	\$ 2,500	
Audit Services (compliant with SBOA requirements)	\$ 7,500	
Payroll Services	\$ 5,000	
Accounting Services	\$ 12,000	
Printing/Newsletter/Annual Report Services	\$ 12,000	
Consultants	\$ 25,000	
Internet Services	\$ 12,000	
Telephone/Telecommunication Services	\$ 9,000	
Total Insurance Costs (per requirements detailed in charter school application)	\$ 26,000	
Travel	\$ 15,000	
Postage	\$ 6,000	
Special Education Services	\$ 10,000	
Student Information Services	\$ 20,000	
Food service	\$ 379,245	Cost of providing lunch to all students and breakfast for free and reduced lunch students
Transportation		
Nursing Services	\$ 10,000	
Other (please describe)		
Other (please describe)		
Other (please describe)		
Other (please describe)		
Total Professional Purchased or Contracted Services	\$ 551,245	
Facilities		
Rent, mortgage, or other facility cost	\$ 118,619	Based on Ellettsville Location, see Budget Assumptions Tab
Furniture & Equipment	\$ 25,000	
Gas/electric	\$ 79,380	Projected 5% Annual Increase on Utilities
Water/ Sewer	\$ 6,615	
Grounds Keeping	\$ 26,460	
Maintenance Services	\$ 13,230	
Custodial	\$ 5,513	
Waste disposal	\$ 6,615	
Debt Service for Facilities (Interest Only)		
Other (please describe)		
Total Facilities	\$ 281,432	
Other		
Contingency	\$ 276,818	8% of basic grant after year 2
Grace College Administrative Fee	\$ 103,807	Assume 3% of Basic Grant (Row 6)
CMO/EMO Fee		Be certain to reflect the full amount of any fee, including the management fee and any pass-through fees. If pass-through fees are reflected elsewhere in the budget, please clearly indicate this in the Budget Narrative.
Common School Fund Loan Interest Costs		
Marketing	\$ 20,000	20,000 annually
Uniform Assistance Program	\$ 10,000	To assist families with the cost of uniforms.
Facility Fund	\$ 350,000	
Total Other	\$ 760,624	
Total Expenditures	\$ 4,348,232	
Carryover/Deficit	\$ 37,579	

Cumulative Carryover/(Deficit) \$ 51,419

Expected New School Annual Operating Budget -- YEAR 4 -- Fiscal Year July 1-June 30		
REVENUE	Amount	Notes
State Revenue		
Basic Grant	\$ 3,831,408	
State Matching Funds for School Lunch Program	\$ -	
Professional Development	\$ -	
Technology Grants	\$ -	
Remediation Program	\$ -	
Gifted and Talented Program	\$ -	
Textbook Reimbursement	\$ 9,000	
Summer School	\$ -	
State Charter Grant (\$500/pupil)	\$ 324,000	
Other State Revenue (please describe)		
Federal Revenue		
Public Law 101-476 (IDEA)	\$ 75,000	
Title I	\$ 62,370	
Title II	\$ 3,000	
Federal Lunch Program	\$ 121,656	\$2.98 per lunch * 180 school day * free and reduced lunch students
Federal Breakfast Reimbursement	\$ 66,135	\$1.62 per breakfast * 180 school day * free and reduced lunch students
Other Revenue Federal sources (please describe)		
Other Revenues		
Committed Philanthropic Donations	\$ -	
Before and After Care Fees	\$ -	
Interest Income	\$ -	
Student Fees/Consumables \$175/student @ 50% Collection	\$ 51,975	\$175 fee/student at collection rate of 50%
Student Lunch	\$ 225,932	Revenue from paid lunch
Lease of Unused Facility Space	\$ 24,000	See Budget Assumptions
Other (please describe)		
Total Revenue	\$ 4,794,476	
EXPENDITURES		
Personnel Expenses		
Wages, Benefits and Payroll Taxes	\$ 2,629,679	Use staffing workbook
Substitute Teachers	\$ 43,836	2% of teacher salaries
Professional Development	\$ 24,500	\$500 per employee per year, summer workshops provided by Hillsdale at no cost
Bonuses	\$ 80,000	
Other (please describe)		
Total Personnel Expenses	\$ 2,778,015	
Instructional Supplies and Resources		
Textbooks	\$ 97,200	\$150 per student
Library, periodicals, etc	\$ 12,960	\$20 per student
Technology	\$ 10,000	projectors, printers, etc, \$60,000 in years 1 and 2, \$10,000 in subsequent years for maintenance / replacement
Assessment materials	\$ 9,720	\$20 per student
Computers	\$ 20,000	One computer per 5 students @ \$600 per computer in year 1, \$20,000 per year in subsequent years
Software	\$ 9,720	\$15 per student
Other classroom supplies	\$ 32,400	\$50 per student
Field trips, other unclassified items	\$ 16,200	\$25 per student
Co-curricular & Athletics	\$ 3,240	\$5 per student
Other (please describe)		
Total Instructional Supplies and Resources	\$ 211,440	
Support Supplies and Resources		
Administrative Computers	\$ 2,000	\$6,000 in year 1, \$2,000 for replacement/maintenance in subsequent years
Administrative Software	\$ 1,000	\$3,000 in year 1, \$1,000 in subsequent years
Administration Dues, fees, misc expenses	\$ 1,000	\$4,000 in year 1, \$1,000 in subsequent years
Office supplies	\$ 12,960	\$20 per student
Other (please describe)		
Total Support Supplies and Resources	\$ 16,960	

Board Expenses		
Charter Board Services, including Board Training, retreats	\$ 5,000	\$5,000 for annual retreat/conference
Charter Board Supplies & Equipment	\$ 2,000	\$2,000 annually
Charter Board Dues, fees, etc	\$ -	
Other (please describe)		
Total Board Expenses	\$ 7,000	
Professional Purchased or Contracted Services		
Legal Services	\$ 2,500	
Audit Services (compliant with SBOA requirements)	\$ 7,500	
Payroll Services	\$ 5,000	
Accounting Services	\$ 12,000	
Printing/Newsletter/Annual Report Services	\$ 12,000	
Consultants	\$ 15,000	
Internet Services	\$ 12,000	
Telephone/Telecommunication Services	\$ 9,000	
Total Insurance Costs (per requirements detailed in charter school application)	\$ 26,000	
Travel	\$ 15,000	
Postage	\$ 6,000	
Special Education Services	\$ 10,000	
Student Information Services	\$ 20,000	
Food service	\$ 413,722	Cost of providing lunch to all students and breakfast for free and reduced lunch students
Transportation	\$ -	
Nursing Services	\$ 10,000	
Other (please describe)		
Total Professional Purchased or Contracted Services	\$ 575,722	
Facilities		
Rent, mortgage, or other facility cost	\$ 118,619	Based on Ellettsville Location, see Budget Assumptions Tab
Furniture & Equipment	\$ 25,000	
Gas/electric	\$ 83,349	Projected 5% Annual Increase on Utilites
Water/ Sewer	\$ 6,946	
Grounds Keeping	\$ 27,783	
Maintenance Services	\$ 13,892	
Custodial	\$ 5,788	
Waste disposal	\$ 6,946	
Debt Service for Facilities (Interest Only)	\$ -	
Other (please describe)		
Total Facilities	\$ 288,322	
Other		
Contingency	\$ 306,513	8% of basic grant each year
Grace College Administrative Fee	\$ 114,942	Assume 3% of Basic Grant (Row 6)
CMO/EMO Fee		Be certain to reflect the full amount of any fee, including the management fee and any pass-through fees. If pass-through fees are reflected elsewhere in the budget, please clearly indicate this in the Budget Narrative.
Common School Fund Loan Interest Costs		
Marketing	\$ 20,000	20,000 annually
Uniform Assistance Program	\$ 10,000	To assist families with the cost of uniforms.
Facility Fund	\$ 450,000	
Total Other	\$ 901,455	
Total Expenditures	\$ 4,778,914	
Carryover/Deficit	\$ 15,561	

Cumulative Carryover/(Deficit) \$ 66,980

Expected New School Annual Operating Budget -- YEAR 5 -- Fiscal Year July 1-June 30		
REVENUE	Amount	Notes
State Revenue		
Basic Grant	\$ 4,212,953	
State Matching Funds for School Lunch Program	\$ -	
Professional Development	\$ -	
Technology Grants	\$ -	
Remediation Program	\$ -	
Gifted and Talented Program	\$ -	
Textbook Reimbursement	\$ 9,000	
Summer School	\$ -	
State Charter Grant (\$500/pupil)	\$ 351,000	
Other State Revenue (please describe)		
Federal Revenue		
Public Law 101-476 (IDEA)	\$ 79,000	
Title I	\$ 43,740	
Title II	\$ 3,000	
Federal Lunch Program	\$ 131,793	\$2.98 per lunch * 180 school day * free and reduced lunch students
Federal Breakfast Reimbursement	\$ 71,646	\$1.62 per breakfast * 180 school day * free and reduced lunch students
Other Revenue Federal sources (please describe)		
Other Revenues		
Committed Philanthropic Donations	\$ -	
Before and After Care Fees	\$ -	
Interest Income	\$ -	
Student Fees/Consumables \$175/student @ 50% Collection	\$ 61,425	\$175 fee/student at collection rate of 50%
Student Lunch	\$ 244,759	Revenue from paid lunch
Lease of Unused Facility Space	\$ 24,000	See Budget Assumptions
Other (please describe)		
Total Revenue	\$ 5,232,317	
EXPENDITURES		
Personnel Expenses		
Wages, Benefits and Payroll Taxes	\$ 2,848,080	Use staffing workbook
Substitute Teachers	\$ 48,029	2% of teacher salaries
Professional Development	\$ 26,000	\$500 per employee per year, most development provided by Hillsdale at no cost
Bonuses	\$ 90,000	
Other (please describe)		
Total Personnel Expenses	\$ 3,012,109	
Instructional Supplies and Resources		
Textbooks	\$ 105,300	\$150 per student
Library, periodicals, etc	\$ 14,040	\$20 per student
Technology	\$ 10,000	projectors, printers, etc, \$60,000 in years 1 and 2, \$10,000 in subsequent years for maintenance / replacement
Assessment materials	\$ 14,040	\$20 per student
Computers	\$ 20,000	One computer per 5 students @ \$600 per computer in year 1, \$20,000 per year in subsequent years
Software	\$ 10,530	\$15 per student
Other classroom supplies	\$ 35,100	\$50 per student
Field trips, other unclassified items	\$ 17,550	\$25 per student
Co-curricular & Athletics	\$ 3,510	\$5 per student
Other (please describe)		
Total Instructional Supplies and Resources	\$ 230,070	
Support Supplies and Resources		
Administrative Computers	\$ 2,000	\$6,000 in year 1, \$2,000 for replacement/maintenance in subsequent years
Administrative Software	\$ 1,000	\$3,000 in year 1, \$1,000 in subsequent years
Administration Dues, fees, misc expenses	\$ 1,000	\$4,000 in year 1, \$1,000 in subsequent years
Office supplies	\$ 14,040	\$20 per student
Other (please describe)		
Total Support Supplies and Resources	\$ 18,040	

Board Expenses		
Charter Board Services, including Board Training, retreats	\$ 5,000	\$5,000 for annual retreat/conference
Charter Board Supplies & Equipment	\$ 2,000	\$2,000 annually
Charter Board Dues, fees, etc		
Other (please describe)		
Total Board Expenses	\$ 7,000	
Professional Purchased or Contracted Services		
Legal Services	\$ 2,500	
Audit Services (compliant with SBOA requirements)	\$ 7,500	
Payroll Services	\$ 5,000	
Accounting Services	\$ 12,000	
Printing/Newsletter/Annual Report Services	\$ 12,000	
Consultants	\$ 10,000	
Internet Services	\$ 12,000	
Telephone/Telecommunication Services	\$ 9,000	
Total Insurance Costs (per requirements detailed in charter school application)	\$ 26,000	
Travel	\$ 15,000	
Postage	\$ 6,000	
Special Education Services	\$ 10,000	
Student Information Services	\$ 20,000	
Food service	\$ 448,199	Cost of providing lunch to all students and breakfast for free and reduced lunch eligible students.
Transportation	\$ -	
Nursing Services	\$ 10,000	
Other (please describe)		
Total Professional Purchased or Contracted Services	\$ 605,199	
Facilities		
Rent, mortgage, or other facility cost	\$ 118,619	Based on Ellettsville Location, see Budget Assumptions Tab
Furniture & Equipment	\$ 25,000	
Gas/electric	\$ 87,516	Projected 5% Annual Increase on Utilities
Water/ Sewer	\$ 7,293	
Grounds Keeping	\$ 29,172	
Maintenance Services	\$ 14,586	
Custodial	\$ 6,078	
Waste disposal	\$ 7,293	
Debt Service for Facilities (Interest Only)	\$ -	
Other (please describe)		
Total Facilities	\$ 295,557	
Other		
Contingency	\$ 337,036	8% of basic grant each year after year 2
Grace College Administrative Fee	\$ 126,389	Assume 3% of Basic Grant (Row 6)
		Be certain to reflect the full amount of any fee, including the management fee and any pass-through fees. If pass-through fees are reflected elsewhere in the budget, please clearly indicate this in the Budget Narrative.
CMO/EMO Fee	\$ -	
Common School Fund Loan Interest Costs	\$ -	
Marketing	\$ 20,000	20,000 annually
Uniform Assistance Program	\$ 10,000	To assist families with the cost of uniforms.
Facility Fund	\$ 500,000	
Total Other	\$ 993,425	
Total Expenditures	\$ 5,161,400	
Carryover/Deficit	\$ 70,917	

Cumulative Carryover/(Deficit) \$ 137,897

Attachment 18

Assumption and revenue projections.

Seven Oaks Classical School intends to apply for the Public Charter School Program (PCSP) grant. This revenue has been included in year 0, year 1, and year 2 for the corresponding amounts of \$180,000, \$240,000, and \$240,000. These amounts are based on information obtained from the Indiana Department of Education (IDOE) and correspond with the average amount received by new schools. We have been informed by the IDOE of their intent to reapply for this federal grant and apply for an extension of the current grant, if necessary, to ensure continuity of this program.

When possible, revenue and expense projections have been estimated based on other operating charter schools, including those also affiliated with Hillsdale College's Barney Charter School initiative.

1. Revenue Projections

- a. Per Pupil Payments: \$5,607 per student from the State Basic Grant. This number is based on a combination of the per pupil rates from Monroe County Community Schools (40% of projected enrollment) and Richland-Bean Blossom Community School Corporation (60% of projected enrollment). Fluctuations in this enrollment balance will have a minimal impact on the per pupil amount as the school corporations have similar per pupil rates. The numbers are subject to change in coming months due to modifications to the school funding formula in the 2015v 2017 state budget.
- b. Indiana Charter School Grant Program \$500 per student.
- c. Federal Grant - Public Charter School Program (PCSP) Grant: \$180,000 in year 0, \$240,000 per annum in years 1 and 2. As noted this grant is competitive and not guaranteed.
- d. Federal Grant - Title II: \$3,000/year.

2. Expense Assumption

- a. Human Resources
 - 1) Headmaster: \$77,000/year
 - 2) Assistant Headmaster: \$52,000/year
 - 3) Teachers (FT) Salaries: \$40,000/year average. The budget pro-forma plans a 2% increase per year for all positions following year 1.
 - 4) Office and Custodial Salaries: Range between \$24,250 – \$40,000
 - 5) Payroll Tax: 7.65%
 - 6) Benefits Rate: 20%
 - 7) Professional Development: The majority of professional development will be provided by Hillsdale College at no cost. Additional funds of \$500/employee per year are budgeted for additional training needs.
 - 8) Substitute Teachers: 2% of teacher salaries.
 - 9) Bonuses: \$50,000/year, increasing by \$10,000/year. A bonus program will be developed to reward teachers for classroom performance.
- b. Facility
 - 1) Facility Purchase or Lease: \$118,619/year

This is calculated based on the purchase and renovation of the facility at 200 E Association St, Ellettsville, IN for the total cost of \$1.25 million. Financing for this amount with 180 payments at a 5% interest rate results in monthly payments of \$9,884. As an alternative, we will pursue a lease on this property with a reduced renovation budget.

Also note that the school operations of Seven Oaks will not occupy the entire 90,000 sqft. facility, and a purchase of this property would result in Seven Oaks being in a position of landlord with a variety of tenants occupying the building. This would provide additional revenue to support the financing of facilities and renovations. Currently less than half of the square footage is leased at \$14,000/month. Given the need to vacate a portion of this leased space for academic purposes, we are projecting monthly revenues to be at \$10,000/month in the first year, with decreasing lease revenue in subsequent years as the school expands.

2) Utilities: \$84,000 per year covering gas, electric, water, and waste disposal.

3) Maintenance and Custodial: \$41,000

c. Materials/Supplies/Equipment

1) Textbooks and Other Instructional Supplies: \$150 per student/year. Additional reading materials are \$3/year and \$20/year for testing and assessment materials.

2) Classroom Technology and Computers: Classroom technology (projectors, printers, other supplies) budgeted at \$60,000 in year one and \$10,000/year in each subsequent year for replacement and maintenance. Computer purchases, for classrooms and labs, are planned at one computer per five students at \$600 per computer in year one with \$20,000 budgeted per year in subsequent years for replacement and maintenance. Software purchase and licensing is planned at \$15 per student/year.

3) Other Classroom Supplies: \$50 per student/year

4) Field trips and other unclassified items: \$25 per student/year

5) Co-curricular & Athletics: \$5 per student/year

6) Administrative Computers & Software: \$6,000 in year 1, \$2,000 in subsequent years for maintenance and replacement.

7) Office Supplies: \$20 per student/year

8) Classroom Furniture: \$20,000 in startup and \$25,000 per year in subsequent years.

d. Other Expenses

1) Administrative Dues, Fees, & Misc. Expenses: \$4,000 in year 1, \$1,000 in subsequent years.

2) Board Training: \$5,000 for annual retreat/conference

3) Board Supplies: \$2,000 per annum

4) Legal Services: \$2,500 per annum

5) Audit Services: \$7,500 per annum

6) Payroll Services: \$5,000 per annum

- 7) Accounting Services: \$40,000 in year one tapering down to \$12,000 once a business manager is added to staff in year 4 and 5.
- 8) Printing/Newsletter/Annual Report Services: \$12,000 per annum
- 9) Consultants: \$25,000 in startup, \$50,000 in year 1, and less in subsequent years as services and fees are gradually reduced.
- 10) Internet Services: \$12,000 per annum
- 11) Telephone/Telecommunication Services: \$9,000 per annum
- 12) Total Insurance Costs: \$26,000 per annum
- 13) Travel: \$15,000 per annum
- 14) Postage: \$6,000 per annum
- 15) Special Education Services: \$7,500 in startup, \$25,000 in year one, and less in subsequent years as services and fees are gradually reduced.
- 16) Student Information Services: \$20,000 per annum
- 17) Food service: Seven Oaks will use a public bidding process to choose a vendor to provide food services. A choice will be made based on the respondents' experience providing food service for similar programs governed by similar regulations, cost of the services, and demonstrated capacity to provide healthy meals that are appealing to students. Seven Oaks will follow all federal, state, and local laws and regulations regarding nutrition to meet the nutritional needs of our students. Lunch prices will be established with the goal of operating a revenue neutral lunch program. A decision regarding Seven Oaks' intention to participate in the Federal Lunch Program will be made prior to the commencement of the first year of operation. This decision will be made with consideration of vendor costs, percentage of students eligible for free and reduced lunch, and updated financial information.
- 18) Nursing Services: \$10,000 per annum

Contingency Plan

In the event that financial needs exceed our revenues, Seven Oaks Classical School will make budget cuts first in areas that are non-essential. The school will also seek to reduce facility costs by reducing the amount of required space based on enrollment numbers.

Seven Oaks will also make staffing decisions in the first two weeks of school based on student enrollments. If we are unable to fill a class to 75% of capacity, then a class and teacher may be cut until we are able to surpass the required enrollment threshold. Upon accepting a position with Seven Oaks, teachers will be informed of this possibility. Seven Oaks will make every effort to recruit and maintain our projected enrollments every year.

Through sound fiscal responsibility and conservative budgeting, including significant contingencies and a facility fund, through the first three (3) years of operation, Seven Oaks Classical School will ensure that it has sufficient funds to cover all anticipated expenses, including but not limited to: (a) start-up costs, (b) any special education costs incurred, (c) any transportation costs necessary to ensure the school will be accessible for all enrolled students, and (d) required retirement plan contributions.

Attachment 19

Additional Requirement for Pre-Existing Non-Profit Organizations: If a pre-existing non-profit organization will be the charter holder/governing entity, provide the following as Attachment 19: (a) the last three years of audited financial statements and management letters; and (b) the most recent internal financial statements including balance sheets and income statements (at least through the end of June 2011).

This attachment is **Not Applicable** to Seven Oaks Classical School