

Members

Sen. Dennis Kruse, Co-Chairperson  
Sen. Scott Schneider  
Sen. Carlin Yoder  
Sen. Earline Rogers  
Sen. Timothy Skinner  
Sen. Lonnie Randolph  
Rep. Robert Behning, Co-Chairperson  
Rep. Rhonda Rhoads  
Rep. James Lucas  
Rep. Vernon Smith  
Rep. Justin Moed  
Rep. Clyde Kersey



# INTERIM STUDY COMMITTEE ON COMMON CORE EDUCATIONAL STANDARDS

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Authority: IC 20-19-2-14.5

## MEETING MINUTES<sup>1</sup>

**Meeting Date:** August 5, 2013  
**Meeting Time:** 1:00 P.M.  
**Meeting Place:** State House, 200 W. Washington St.,  
Senate Chambers  
**Meeting City:** Indianapolis, Indiana  
**Meeting Number:** 1

**Members Present:** Sen. Dennis Kruse, Co-Chairperson; Sen. Scott Schneider; Sen. Carlin Yoder; Sen. Earline Rogers; Sen. Timothy Skinner; Sen. Lonnie Randolph; Rep. Robert Behning, Co-Chairperson; Rep. Rhonda Rhoads; Rep. James Lucas; Rep. Justin Moed; Rep. Clyde Kersey.

**Members Absent:** Rep. Vernon Smith.

Co-chairperson Kruse called the meeting to order at 1:05 pm and had the Committee's charge read. The Committee received a packet of information concerning Common Core standards from Legislative Services Agency (Exhibit A).

Glenda Ritz, State Superintendent of Public Instruction, provided a response to a request for information concerning the Common Core standards (Exhibit B). She stated that the Department of Education is fully committed to a thorough review (including public input) of the standards. She then presented a slide presentation concerning the standards (Exhibit C). The presentation summarized the evaluation process for the standards. In response to questions from the Committee, she explained the process for adopting new standards for Indiana, which, by statute, involves committees of teachers in the subject area for which the standard is being

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<sup>1</sup> These minutes, exhibits, and other materials referenced in the minutes can be viewed electronically at <http://www.in.gov/legislative>. Hard copies can be obtained in the Legislative Information Center in Room 230 of the State House in Indianapolis, Indiana. Requests for hard copies may be mailed to the Legislative Information Center, Legislative Services Agency, West Washington Street, Indianapolis, IN 46204-2789. A fee of \$0.15 per page and mailing costs will be charged for hard copies.

reviewed and adopted. She stated that one of the purposes of the review is to ensure that the Common Core standards are not less satisfactory than the current standards in use. She also stressed that the standards must be accompanied by a good assessment system so teachers will know how well their students are doing. Superintendent Ritz will also be appointing advisory members to these committees, including business leaders, parents, and other interested parties. The goal is to have approved college and career ready standards available by July 1, 2014.

Dr. Jason Zimba, who was a member of the writing team for the Common Core standards on mathematics, provided testimony concerning the process of arriving at the standards. He compared previous Indiana standards with the Common Core standards and read short statements from others.

Kathleen Porter-Magee, a senior director and policy fellow at the Fordham Institute, testified about the advantages (such as clarity and rigor) she sees in the Common Core standards. In addressing some of the criticisms of the Common Core standards, she indicated that there were areas in which Indiana's standards were superior to the Common Core, and others in which the Common Core standards were superior. As a result, Indiana could combine the best of both standards. In response to Commission questions, Ms. Porter-Magee indicated that states could supplement Common Core standards by up to 15 percent, and states can choose which content area to align with the standards. The standards would clarify expectations for students and teachers and preserve local control over the curriculum, enabling states to adopt the standards to meet their specific needs. Indiana would not be obligated to submit data to an outside agency if it adopts the Common Core standards.

Bill Evers, a research fellow at the Hoover Institution, stated that several comments made by the previous two speakers were incorrect. He also stated that the Common Core standards do not align with international standards from highly ranked nations and are not as rigorous as those in top-performing nations. This is particularly true for mathematics. He indicated that Indiana should not adopt the Common Core standards. In answer to Commission questions, he indicated that one reason for the high remediation rate could be the lack of specialized mathematics expertise among elementary school teachers. He doubted that the Common Core standards could be revised as extensively as indicated earlier. Additionally, he believes that the top physics and math students in the U.S. perform as well as the lowest students in Japan.

James Stergios, Pioneer Institute, stated that the Common Core standards were developed without any real input from states or the public. In addition, federal grants are being used by consortia to develop curriculum and assessments that align with the Common Core standards. The costs of implementation will be high for the states; one estimate computed the cost at approximately \$15.8B; in some instances, the Common Core standards are of lower quality than existing state standards (Exhibit D).

Sandra Stotsky, University of Arkansas, feels that Indiana's former English/Language Arts (ELA) standards were superior to those of the Common Core. She had extensive critiques of the Common Core ELA standards.

Terrence Moore, Hillsdale College, feels the Common Core standards are an unconstitutional encroachment into the control of state and local authority over education, as well as being a poor experiment in educational reform.

Pamela Horn, Purdue University, stated that Purdue and its faculty support the Common Core standards. It is an improvement over the current standards. Currently, Indiana high school students lag behind students in other states in preparation for college. In response to Commission questions, she stressed that attention should be paid to improving teaching,

learning, and assessment in order to produce the type of workforce that the state is striving to achieve.

Tim Brauch, Manchester University, spoke in support of the Common Core standards in mathematics and distributed a handout concerning support for the mathematics standards by members of the Conference Board of the Mathematical Sciences and business leaders (Exhibit E).

Heather Schilling, Manchester University, spoke in support of the Common Core standards in English, which she feels remedy areas in which Indiana high school students fall short in college readiness.

Mary Bouck, Purdue University, stated that the mathematics Common Core standards are an improvement over the current Indiana standards and are supported by a number of professional mathematics organizations. The Common Core standards emphasize proficiency.

J.T. Coopman, Indiana Association of Public School Superintendents, stated that the members of his association show wide-spread support for the Common Core standards. The standards should be phased in to allow adequate time for teacher training.

Scott Turney, Indiana Small and Rural Schools Association, stated that the organization is in favor of the Common Core standards. He added that members have questions about assessment design and administration and whether the standards can be customized for Indiana.

Frank Bush, Indiana School Boards Association, stated that Indiana school corporations have already invested time and money in adapting to the Common Core standards.

Flora Reichenadter, Superintendent of Franklin Township Schools in Marion County, stated that her district has already spent time, energy, and almost \$1 M over the past three years in implementing the Common Core standards for kindergarten through Grade 2.

Dena Cushenberry, Superintendent of MSD Warren Township in Marion County, stated that schools have also begun implementing the standards for kindergarten through Grade 2, and first grade teachers have stated that the kindergarteners starting first grade have been the best prepared the teachers have seen. She distributed copies of the third grade standards for mathematics and English Language/Arts (Exhibit F).

James Milgram, Stanford University, served as a member of the validation committee for the Common Core mathematics standards. He believes that no state should adopt the standards because, as currently written, the standards in mathematics will not prepare a student for university-level mathematics. He feels that the major problem is that Common Core mathematics standards neglect higher mathematics beyond Algebra 2. He fears that although this is presented as the minimum acceptable standard, in practice it would become the norm, especially since it would determine how the assessments are developed. He stated that Indiana's mathematics standards are superior to those of the Common Core, but he cautioned that Indiana's standards do not compare favorably with the current international standards. He also indicated that the Common Core is superior to the standards in many states.

Cara Swinefurth, Principal, St. Thomas Aquinas Catholic School, Indianapolis, spoke in favor of adopting the Common Core standards. Her teachers have found the standards to be a useful framework to achieve mastery in subject areas (Exhibit G).

Dave Benak, Principal, Elkhart Area Career Center, Elkhart, found that the Common Core

standards have been useful in getting students to have confidence in their mathematics practice and has improved their problem solving skills.

Michele Gmutza, Assistant Principal, Evansville North Junior High School, Evansville, found that the previous Indiana standards left gaps in subject area mastery that the Common Core standards have addressed.

Shirley Wright, Indiana Middle Level Education Association, stated that middle school-level teachers whom she represents support the Common Core standards.

Lisa Froderman, Principal, Eastside Elementary, Clay Community Schools, finds the Common Core standards to be more concise than the previous Indiana standards and better reflect the realities of 2013. In her opinion, the standards are based on current best teaching practices. They also provide a large variety of resources for teachers to use.

Ze'ev Wurman spoke against the Common Core standards. He spoke about the development of the Common Core mathematics standards and finds the standards to be inferior to the previous Indiana standards (Exhibit H). He stated that the standards did not present the topics to be taught in a coherent order.

Sarah Latdrik, who teaches in MSD Warren Township, finds that learning has changed in her classroom since the adoption of Common Core standards, and the children have already become critical thinkers as kindergartners. She finds that the Common Core standards are more rigorous than the current standards.

Christina Lear, who teaches in Herron High School, Indianapolis, has worked on implementing the Common Core standards for the past three years. She feels the standards are a positive step for Indiana.

Fatonia Shank, a teacher in MSD Warren Township, has found that her students have become critical thinkers because of the Common Core standards. She finds the standards are rigorous and is excited to implement them.

Chris Connell, Indiana University Department of Mathematics, stated that there is universal agreement across his department that Indiana's previous standards were superior to the Common Core standards. He believes the Common Core standards are not preparing students for universities or even community colleges in STEM (science, technology, engineering, and math) subject areas.

Sally Sloan, Indiana Federation of Teachers, stated that her members who have implemented Common Core standards approve of them because of professional development time. Members do have concerns about the mathematics standards and the immediate implementation of high-stakes testing. She asked that testing be delayed by one year.

John O'Neil, Indiana State Teachers Association, expressed support for the continued implementation of the Common Core standards; however, he indicated that teachers oppose the use of the assessment developed by the Partnership for Assessment of Readiness for College and Careers (PARCC). He believes that the Common Core standards provide consistent expectations for all students but urged that an alternative assessment system be developed.

John Stoffel, a teacher in Huntington, opposes the Common Core standards because of costs and the potential for abuse.

Jolee Garis, teacher and elementary math coach, spoke in support of the Common Core standards. She finds that the standards emphasize conceptual understanding, rather than merely arriving at the correct answer.

Tami Portolese, a teacher in Penn Harris Madison Schools, Mishawaka, finds that the Common Core standards allow teachers flexibility to instruct their students in a variety of manners.

Charity Mitchell, parent, supports the Common Core standards because teachers have found the standards to be successful in the classroom.

Matthew Modleski, former Air Force member, spoke about the indoctrination of children in schools and the dangers of allowing federal control over standards and curricula.

Enrique Galindo, Hoosier Association of Mathematics Teacher Educators, said his organization supports the Common Core standards for mathematics and provided seven main reasons for the support, in addition to rebutting commonly heard objections to the standards (Exhibit I).

Glen Kissell, expressed concerns that the Common Core standards violate principles of federalism and several federal statutes prohibiting federal control over kindergarten through Grade 12 curricula and standards. In addition, he finds the standards to be skills-driven and mediocre, and questions whether they serve the proper purpose for public education. He also expressed concerns about the defects in teacher preparation, licensure, and professional development, which he believes inhibit student learning (Exhibit J).

Mark Russell, Director of Education, Indianapolis Urban League, spoke in support of the Common Core standards which he believes elevates the academic expectations for all children. He considers the standards as another to be used in resolving the need for remediation, especially among minority students. Both the national and local Urban Leagues support the standards. In addition, U.S. Department of Defense supports the standards as a means for the children of military families to receive quality education.

Richard Duke spoke against the Common Core standards, raising concerns about the collection of longitudinal data concerning students. He stated that the standards are unconstitutional (as is the U.S. Department of Education) and an encroachment on Indiana's sovereignty. He believes that the Common Core standards are socialist indoctrination of students.

Schauna Findlay, Chief Academic Officer, Goodwill Education Initiatives, testified in favor of the continued implementation of the Common Core standards in Indiana. She finds the Common Core standards to have greater clarity and rigor than the previous Indiana standards, promoting greater problem-solving (Exhibit K).

Sue Lile, expressed concerns about the Common Core standards. She read a statement from 2,300 petition signers that oppose the adoption of the Common Core standards and a national curriculum. The petitioners cited that the standards would subvert local choice by introducing a federal curriculum. They also argue that the standards are a violation of federal and constitutional law and that the testing consortium would dictate testing dates and test cut scores.

In addition, written testimony was submitted by Mary Kittinger (Exhibit L) and Bernice Tirmenstein (Exhibit M) in opposition to the Common Core standards.

The next meeting of the Committee will be held on September 10. The meeting was adjourned at 8:30 pm.



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Meeting Date: August 5, 2013  
Meeting Time: 1:00 P.M.  
Meeting Place: State House, 200 W. Washington St., Senate Chambers  
Meeting City: Indianapolis, Indiana  
Meeting Number: 1

### **MEETING AGENDA**

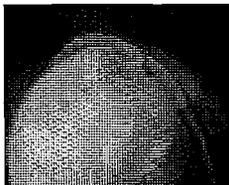
1. Call to Order
2. Introduction of Members.
3. Committee Charge.
4. Future Committee Dates.
  - a. September 10, Assessments.
  - b. October 1, Report from the Office of Management and Budget.
5. Department of Education Testimony.
6. Expert Testimony by Proponents of Common Core Standards-  
Testimony limited two speakers, who are each allotted 20 minutes to testify.
7. Expert Testimony by Opposition of Common Core Standards-  
Testimony limited two speakers, who are each allotted 20 minutes to testify.
8. Public Testimony- Testimony limited to 10 minutes per speaker with 2 hours allotted for testimony in favor of the Common Core Standards and 2 hours for testimony opposed to the standards. Either group can defer 30 minutes of their allotted time til the September 10 meeting.
9. Other Business.

(The meeting will be broadcast over the Internet for those unable to attend. Please visit <http://www.in.gov/legislative/2441.htm> and select the video stream for the appropriate room from the drop down list to watch the Webcast.)

July 17, 2013



## Overview of the Common Core State Standards



### Why Common Core State Standards?

#### Reagan Years

Some have argued that the antecedents to the Standards journey as far back to the Reagan administration, when the National Commission on Excellence In Education released its report titled "A Nation at Risk: The Imperative for Educational Reform." The report referenced academic standards as "expectations" or "minimum competencies" and recommended:

- "Strengthening" high school graduation requirements
- Adopting more "rigorous and measurable" standards for admission in to four-year universities, and
- Utilizing more effectively the school day and school resources toward learning "new basics."

One specific recommendation included moving from a 180-day school year toward a 200- to 220-day school year and increasing the length of the school day to seven hours.

#### Bush I Years

In response to this report, the George H.W. Bush administration convened the states' governors for an education summit in 1989. The summit unveiled a bipartisan consensus that the country needed anchored educational goals. Additionally, the governors felt strongly that the federal government's role toward meeting those goals should be limited to providing supplemental funding to the states in their individualized efforts toward meeting these national educational goals.

#### Clinton Years

During the Clinton administration, a number of efforts to develop national goals or standards ensued. Subsequently, the Clinton administration proposed a national assessment for math and reading, which in turn riled its political and ideological opponents and the proposal died.

#### Bush II Years

Despite the failed efforts to put into operation national standards and national assessments, the urgency around improving educational outcomes for all American students persisted. In 2001, the urgency manifested itself in Congress's reauthorization of the Elementary and Secondary Education Act (ESEA), better known as No Child Left Behind (NCLB). The signature education legislation of the George W. Bush Administration, NCLB placed the federal government squarely in states' own education reform efforts. Of the more maligned provisions of NCLB was the federal requirement on states to ensure all students reach 100% proficiency in math and reading by 2014. For schools failing to make "adequate yearly progress" toward this goal, punitive measures followed. As 2014 crept closer, it became more and more evident that the 2014 goal was unrealizable, let alone statistically impossible. Yet the urgency for improving American education remained.

#### Obama Years

Perhaps learning from the lessons of the Clinton and Bush Administrations, and with a continued sense of urgency, the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO) convened their members and formed an advisory group to chart a way forward. The advisory group concluded by publishing *Benchmarking for Success*. This publication called for an upgrade in state standards in math and English language arts (ELA) that would be common across all states and would be internationally benchmarked. *Benchmarking for Success* also advocated that:

- States leverage their collective influence to ensure that textbooks, digital media, curricula, and assessments align with internationally benchmarked standards, and
- States revise policies for recruiting, preparing, developing and supporting teachers and school leaders.

Immediately following the publication of *Benchmarking for Success*, NGA and CCSSO began an initiative, the Common Core State Standards Initiative (CCSSI) to develop academic standards that would be:

- **Common:** The standards would be the same across all states and in all grades,
- **Core:** They would address core academic subjects only (math and ELA)
- **State:** The standards would be state developed and implemented,
- **Standards:** The Initiative would address standards only, not nationalized curricula or a national test.

### Who developed the Standards?

CCSSI developed the Standards by drawing on the input of educators and educator groups, higher education stakeholders, content experts, parents and the public. Throughout the *development process*, CCSSI also drew upon the expertise of an advisory board that included Achieve, Inc., ACT, the College Board, the National Association of State Boards of Education, and State Higher Education Executive Officers.

In September 2009, CCSSI released a draft proposal of the college- and career-readiness standards for *public comments*, and in March 2010, it released a draft proposal of the Standards for grades K-12 for a second round of *public comment*. The Initiative reported that it received over 10,000 public comments during this time. In June 2010, CCSSI released a final draft of the Common Core State Standards, and by late 2011, 45 states, the District of Columbia and two territories had formally pledged to adopt the Standards.

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#### NCSL Resources on the Common Core State Standards

- [Common Core State Standards Homepage](#)
- [Information Related to the Assessment Consortia](#)
- [Common Core State Standards Legislation](#)
- [Costs Associated with the Common Core State Standards](#)
- [Promises versus Challenges Related to Implementing the Common Core State Standards](#)
- [NCSL Education Standing Committee Policy: Common Academic Standards](#)
- [FAQ for State Legislators and Staff on the Common Core State Standards](#)

#### Other Resources for the Common Core State Standards

- [State Legislative Action on the Common Core State Standards \(Maintained by NCSL\)](#)
- [Common Core State Standards Initiative](#)
  - [Read the Common Core State Standards](#)
- [Education Commission of the States Core Commons Website](#)
- [Partnership for Assessment of Readiness for College and Careers \(PARCC\)](#)
- [SMARTER Balanced Assessment Consortium](#)

#### NCSL Contact

- For more information, email [Daniel Thatcher](#) or call at 303-856-1646.

## **What subject areas do the Standards cover?**

The Standards only address ELA and mathematics. Key components of the ELA standards include:

- Reading: text complexity and the growth of comprehension
- Writing: text types, responding to reading, and research
- Speaking and listening: flexible communication and collaboration
- Language: conventions, effective use, and vocabulary.

Key concepts in the high school mathematics standards include:

- Number and quantity;
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and probability.

## **What grades do the Standards cover?**

The Standards include mathematics and ELA standards for each individual grade from kindergarten to eight and, in order to allow flexibility in high school course design, two-year bands for grades nine to 12 (i.e., one set of standards covers grades nine and 10 and another set covers grades 11 and 12).

## **What criteria were used to develop the Standards?**

According to CCSSI, drafters sought to craft core standards that:

- Align with expectations for college and career success.
- Are clear, so that educators and parents know what they need to do to help students learn.
- Are consistent across all states, so that students are not taught to a lower standard just because of where they live.
- Include both content and the application of knowledge through high-order skills.
- Build upon strengths and lessons of current state standards and standards of top-performing nations.
- Are realistic, for effective use in the classroom.
- Are informed by other top performing countries, so that all students are prepared to succeed in our global economy and society.
- Are evidence and research-based.

## **What impacts will the Standards have on classroom curricula?**

Curriculum must align with the Standards in core content subject areas. However, states retain sole authority over which Standards-aligned curriculum to adopt (a number of vendors currently offer a variety of Standards-aligned curricula and instructional materials); the consortia will not ask states to yield over that authority. As is currently the practice, most states allow state and local boards of education to choose their own curricula, which they do from a variety of both in- and out-of-state providers and vendors.

States vary in terms of how they regulate whether districts and schools adopt quality curricula. Some state boards of education allow districts to choose from a menu of approved curriculum providers, while most other states leave these decisions to individual districts, and in some cases individual schools. Faced with the difficulty of ensuring locally chosen curricula and instructional materials are Standards-aligned, states may need to provide districts and schools with detailed guidance and oversight over the adoption of high-quality, Standards-aligned curricula. Given the explosion of electronic- and internet-based curricula and instructional materials, state guidance and oversight may be all the more needed.

## **How will the Standards impact teachers and school leaders?**

Successful implementation of the Standards hinges on what occurs in the classroom. Teachers and school leaders will therefore play a pivotal role toward successful implementation. To support teachers and school leaders in this role, state departments of education may redirect existing professional development resources toward materials, programs, or statewide initiatives designed to support teachers and school leaders as they master a Standards-aligned pedagogy.

## **How will the Standards impact the relationship between K-12 and higher education systems?**

Out of concern that incoming freshmen were increasingly ill-equipped for both the rigor and nature of higher education instruction, a primary objective of the Standards was to improve student readiness for college and vocational training.

Accordingly, Standards implementation will directly impact at least two programmatic areas within state systems of higher education. First, to ensure a seamless transition from high school to post-high school learning, state systems of higher education will have to coordinate with state departments of education to align freshman curriculum with twelfth grade Standards-based curriculum. This may also include aligning college admission requirements with the Standards.

Second, colleges of education may have to adapt pedagogical instruction to align with the Standards to ensure new educators are prepared for teaching the Standards in the classroom.

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# Common Core State Standards: Frequently Asked Questions *for State Legislators*

SPRING 2012  
(Updated September 2012)

In June 2009, governors and state commissioners of education from 48 states, two territories and the District of Columbia formally launched the Common Core State Standards Initiative (CCSSI) through their respective organizations (the National Governors Association Center for Best Practices and the Council of Chief State School Officers). CCSSI received additional support from a diverse cadre of political, education and business leaders.<sup>1</sup>

The objective of CCSSI was to identify and develop a common set of core knowledge and skills mastery in 1) English language arts (ELA) and 2) mathematics every American high school graduate would need to enter college or a career ready to succeed. One year later, CCSSI released the Common Core State Standards (the Standards) for ELA and mathematics for state adoption.

This brief answers basic questions for state legislators about the Standards. More detailed information on the Standards can be found at <http://www.ncsl.org>.

## Who developed the Standards?

CCSSI developed the Standards drawing upon input from educators and educator groups, higher education stakeholders, content experts, parents and the public.<sup>2</sup> Throughout the development process, CCSSI also drew upon the expertise of an advisory board that included Achieve Inc., ACT, the College Board, the National Association of State Boards of Education (NASBE) and State Higher Education Executive Officers (SHEEO).<sup>3</sup>

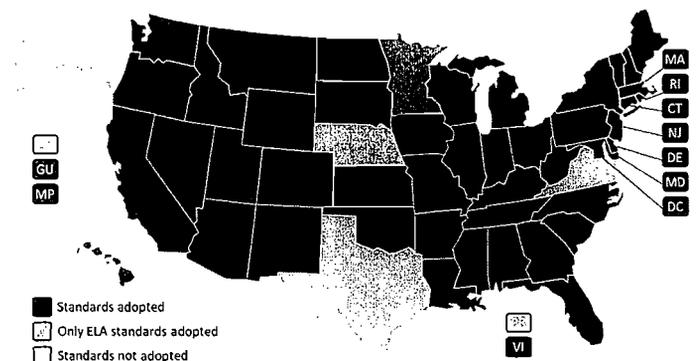


Figure 1. States that Adopted the Standards

In September 2009, CCSSI released a draft proposal of the college- and career-readiness standards for public comments, and in March 2010, it released a draft proposal of the Standards for grades K-12 for a second round of public comment. The Initiative reported that it received over 10,000 public comments during this time.<sup>4</sup> In June 2010, CCSSI released a final draft of the Common Core State Standards<sup>5</sup>, and by late 2011, 45 states, the District of Columbia and two territories had formally pledged to adopt the Standards (Figure 1).<sup>6</sup>

## What subject areas do the Standards cover?

The Standards address only ELA and mathematics (Figure 2). Key components of the ELA standards include<sup>7</sup>:

- Reading—text complexity and the growth of comprehension;
- Writing—text types, responding to reading, and research;
- Speaking and listening—flexible communication and collaboration; and
- Language—conventions, effective use, and vocabulary.

Key concepts in the high school mathematics standards include<sup>8</sup>:

- Number and quantity;
- Algebra;

**Table 1. Government Entity that Adopted the Standards**

Board of Education (or comparable state agency)	Chief State Education Officer (or similar state entity)	Legislative Approval Required	Did Not Adopt
AL, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, IL, IN, IA, KS, LA, MD, MA, MI, MS, MO, MT, NV, NH, NJ, NY, NC, MP, OH, OK, OR, PA, RI, SC, SD, TN, UT, VT, WV, WY	NM, ND, WI	ID (State Senate Education Committee approved Board of Education decision to adopt)  MN (Commissioner of Education through statutory authorization) <sup>12</sup>  KY (General Assembly)  ME (State Legislature approved Department of Education proposal to adopt)  WA (State superintendent through authorization from State Legislature)	AK, NE, TX, VA

- Functions;
- Modeling;
- Geometry; and
- Statistics and probability.

**What grades do the Standards cover?**

The Standards include mathematics and ELA standards for each grade, kindergarten to eight, and, in order to allow flexibility in high school course design, two-year bands for grades nine to 12 (i.e., one set of standards covers grades nine and 10 and another set covers grades 11 and 12).<sup>9</sup>

**What criteria were used to develop the Standards?**

According to CCSS<sup>10</sup>, drafters sought to craft core standards that:

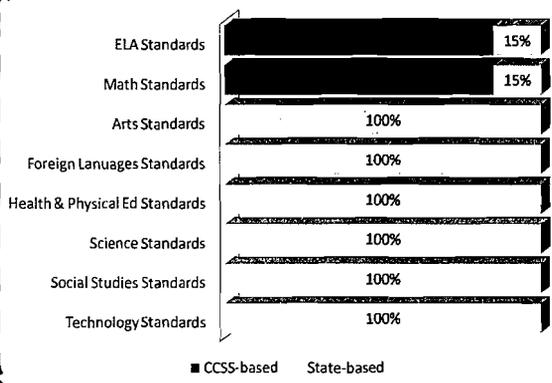
- Align with expectations for college and career success;
- Are clear, so that educators and parents know what they need to do to help students learn;
- Are consistent across all states, so that students are not taught to a lower standard just because of where they live;
- Include both content and application of knowledge through high-order skills;
- Build upon strengths and lessons of current state standards and standards of top-performing nations;
- Are realistic, for effective classroom use;
- Are informed by other top-performing countries, so that all students are prepared to succeed in the global economy and in society; and
- Are evidence- and research-based.

**How did states legally adopt the Standards?**

In most states, laws delegate to state boards of education the authority to establish or adopt academic standards for statewide K-12 public education systems. In five states, however, the legislature retains authority to grant final approval of academic Standards. **Table 1** provides a state-by-state breakdown of the government entity that adopted the Standards.

Will states need new assessments that align to the Standards? If so, who is developing

**Figure 2.** States may augment the Standards by 15% with their own state-specific standards in ELA and math. States retain their own states standards in all other subject areas.



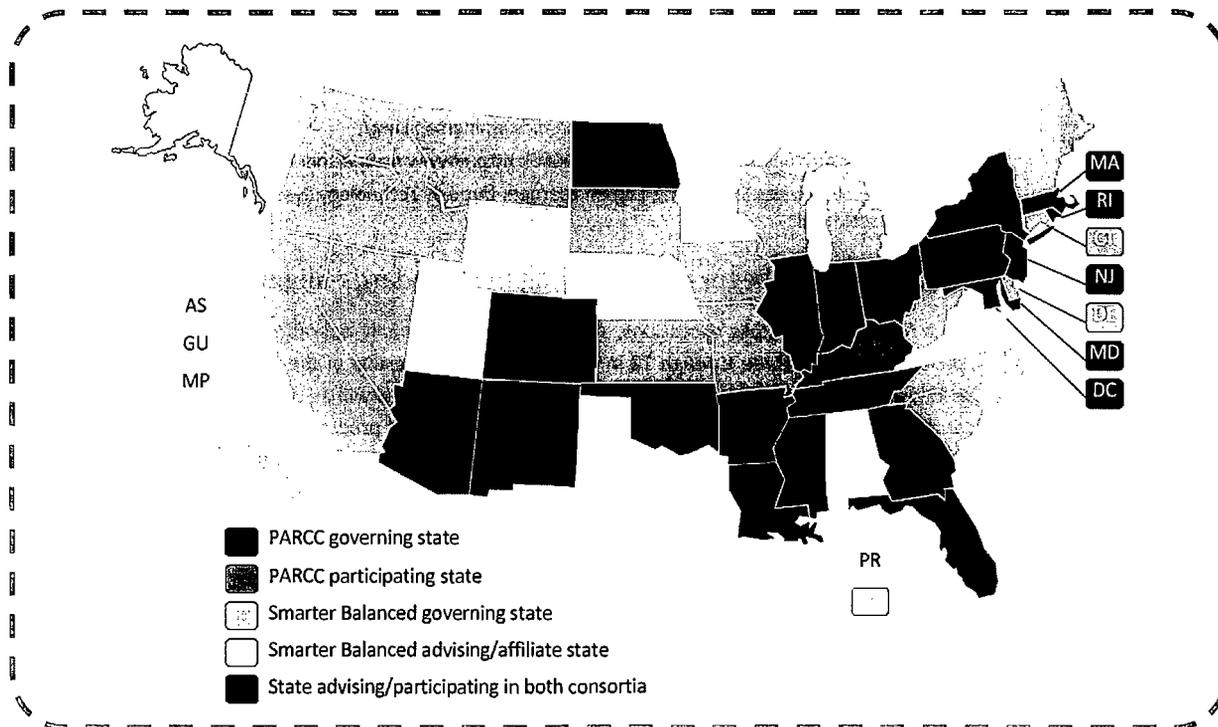


Figure 3. In each state, the chief state school officer, the president of a state school board, or the governor signed the MOU with a consortium.

these assessments?

States will need new assessments to measure student progress against the Standards. In 2010, in recognition of this need, the U.S. Department of Education (the Department) awarded two assessment consortia \$330 million in Race to the Top competitive grants to develop assessments aligned to the Standards<sup>12</sup>:

- \$170 million to Partnership for Assessment of Readiness for College and Careers (PARCC)<sup>13</sup>, and
- \$160 million to SMARTER Balanced Assessment Consortium (Smarter Balanced).<sup>14</sup>

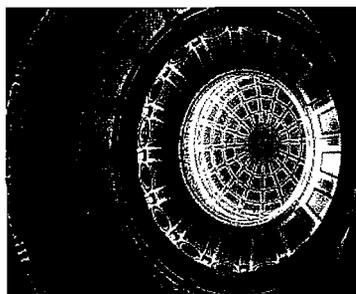
To ensure that the assessments match individual state needs, states participate in each consortia either as a governing state or as a participating state. Governing states developed the initial proposals to the Department seeking Race to the Top grants to develop the Standards-aligned assessments. Governing states also currently participate in the consortia by overseeing—through appointment of state leaders who sit on a consortium’s governing board—their respective consortium’s development of the assessments. Participating states, meanwhile, pledge to use the assessments as developed by the governing states.

When states joined one of the consortia, they signed a memorandum of understanding (MOU) pledging to implement the consortium’s assessments for purposes of federal accountability testing. Because states collaboratively oversee development of the assessments vis-à-vis the consortia, the assessments are referred to as state-developed, and the consortia are referred to as state-led.

### How did states decide which consortium to join?

States independently chose to join PARCC or Smarter Balanced and, in a few cases, joined both (Figure 3), based upon each state’s individual assessment needs.<sup>15</sup>

Will there be separate Standards-aligned assessments for students with significant cognitive disabilities and for English language learners?



*By the 2014-2015 school year, states will administer end-of-year assessments aligned to the Standards.*

*PARCC and Smarter Balanced project that the annual per pupil cost of their ELA and mathematics assessments will range from \$19.08 to \$27.31.<sup>17</sup>*

The U.S. Department of Education, through the Office of Special Education Programs, awarded smaller Race to the Top grants to three separate state-led consortia to develop alternative assessments for students with significant cognitive disabilities and for English language learners. These consortia are:

- Dynamic Learning Maps (DLM): <http://dynamiclearningmaps.org/>,
- National Center and State Collaborative (NCSC): <http://www.ncscpartners.org/>, and
- Assessment Services Supporting English Learners through Technology Systems (ASSETS): <http://dpi.wi.gov/oea/assets.html>.

### When will states begin administering the Standards-aligned assessments?

With a few individual state exceptions, states will administer fully-operational end-of-year summative assessments in grades three through 12 in the spring of 2015; results of these assessments will be available the following fall. Beginning in the 2015-2016 school year, states will administer formative interim or mid-year assessments throughout the school year to track students' progress toward meeting the Standards.<sup>17</sup> Smarter Balanced plans to offer computer-adaptive assessments; PARCC plans to offer computer-based tests.

### How will the Standards affect classroom curricula?

Curriculum must align with the Standards in core content subject areas. However, states retain sole authority over which Standards-aligned curriculum to adopt (a number of vendors currently offer a variety of Standards-aligned curricula and instructional materials); the consortia will not ask states to yield over that authority. As currently is the practice, most states allow state and local boards of education to choose their curricula, which they do from a variety of both in- and out-of-state providers and vendors.

State regulations vary regarding how they regulate whether districts and schools adopt quality curricula. Some state boards of education allow districts to choose from a menu of approved curriculum providers, while most other states leave these decisions to district, and, in some cases, to schools. Faced with the difficulty of ensuring locally chosen curricula and instructional materials are Standards-aligned, states may need to provide districts and schools with detailed guidance for and oversight of adoption of high-quality, Sta.

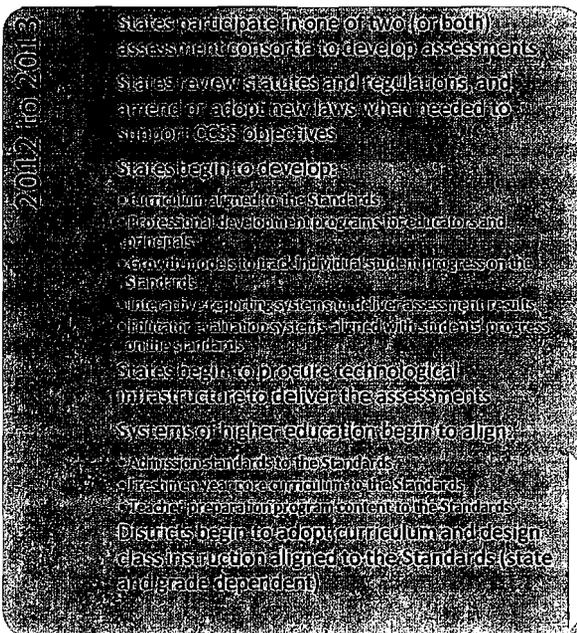
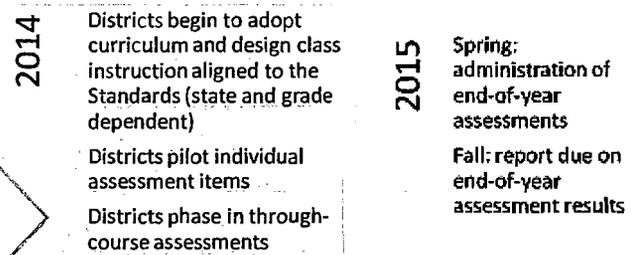
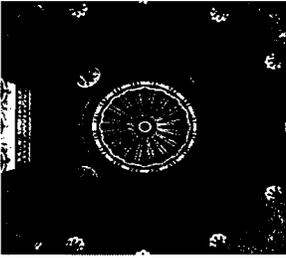


Figure 4. Timeline for Standards implementation





dards-aligned curricula. Given the explosion of electronic- and internet-based curricula and instructional materials, state guidance and oversight may be even more necessary.

### How will the Standards affect teachers and school leaders?

Successful implementation of the Standards hinges upon what occurs in the classroom. Teachers and school leaders therefore will play a pivotal role in successful implementation. To support teachers and school leaders in this role, state departments of education may redirect existing professional development resources toward materials, programs or statewide initiatives designed to support teachers and school leaders as they master a Standards-aligned pedagogy.

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### How will the Standards affect the relationship between K-12 and higher education systems?

Due to concerns that incoming freshmen have been increasingly ill-equipped for both the rigor and nature of higher education instruction, a primary objective of the Standards was to improve student readiness for college and vocational training.

Accordingly, implementation will directly affect at least two program areas within state systems of higher education. First, to ensure a seamless transition from high school to post-high school learning, state systems of higher education will need to coordinate with state departments of education to align freshman curriculum with 12th grade Standards-based curriculum. This also may involve aligning college admission requirements with the Standards.

Second, colleges of education may have to adapt pedagogical instruction to align with the Standards to ensure that new educators are prepared for teaching the Standards in the classroom.

### How much will implementation cost states?

Estimates vary widely and, depending on a state's readiness for computer-based assessments, so will the costs. A number of factors will determine the cost states ultimately will incur due to Standards implementation. For instance, states with a dated or sparse computer inventory will face higher upfront costs but may have fewer operating costs in five years due to a newly purchased inventory; the same scenario may apply to states' technological infrastructure.

In addition, if states' existing curricula do not align with the Standards, schools and districts may need to purchase new Standards-aligned textbooks and instructional materials. Professional development initiatives, materials and programs to instruct teachers and school leaders on the Standard also may be costly.

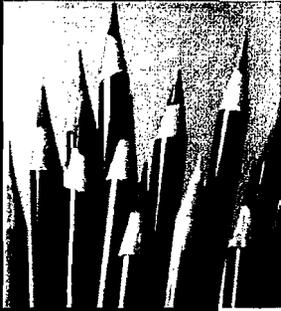
Because states will collaborate with each other within the assessment consortia to develop assessments, instructional and professional development resources, and reporting systems, states will likely experience cost efficiencies.<sup>18</sup> Specifically, both consortia have pledged to maintain open digital libraries of formative assessments, tools and resources to train educators and provide professional development; model curriculum frameworks, tutorials and practice tests for students and educators; training modules for scoring; and other tools to support educator collaboration.<sup>19</sup> These efforts should help to mitigate the cost of implementing the Standards.

### What is the timeline for implementation?

The timeline for fully implementing the Standards varies by state due to differences in readiness across programmatic implementation areas. While one state may have in place a robust professional development program to support educators as they implement the Standards in the classroom, for example, the same state may lack financial resources to develop and implement a Standards-aligned assessment system. Most states, however, plan to achieve full Standards implementation by the 2014-2015 school year. **Figure 4** provides a general implementation timeline.

During the fall of 2011, the Center for Education Policy surveyed state education agencies as to their progress toward implementing the Standards. Half the states responding to a question about when they fully expect to implement the

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*It is incumbent upon states to ensure implementation of the Standards remains a state-driven and state-focused effort.*

Standards indicated they would meet the 2014-2015 targeted school year; the remaining states expected a earlier implementation target school year.<sup>20</sup>

### What possible benefits will states receive by adopting the Standards?

A March 2010 NCSL *LegisBrief* reported that Standards proponents argued the Standards would further states' educational goals and objectives in the following ways<sup>21</sup>:

- Articulate to parents, teachers and the general public expectations for students regardless of where the student lives;
- Align textbooks, digital media and curricula to international standards;
- Base professional development for educators on identified needs and best practices;
- Develop and implement an assessment system to measure student performance against the Standards; and
- Evaluate policy changes needed to help students and educators meet the Standards.

Other assets offered by Standard proponents include<sup>22</sup>:

- Rigor (many states consider the Standards to be at least as rigorous, if not more so, than their current Standards);
- State-driven (states—not the federal government—voluntarily developed and adopted the Standards);
- Cross-state comparability (the Standards will become a common metric across 45 states and will allow for easy comparisons between schools, districts, and states); and
- Portability (because of the Standards' near ubiquity across the nation, students and parents will have common expectations in the classroom regardless of location or in the event of a move).

### Conclusion

It is incumbent upon states to ensure implementation of the Standards remains a state-driven and state-focused effort, and that Standards-aligned curriculum development remains within the prerogative of state and local education agencies and school boards.

During the implementation process, NCSL remains committed to helping state legislatures with these or any other policy concerns that may arise.

### What possible drawbacks will states experience by adopting the Standards?

Opponents of the Standards have suggested that:

- Adoption of national standards is only one step removed from a federally mandated curriculum<sup>23</sup>;
- Implementation of the Standards may have unforeseen or unintended policy consequences<sup>24</sup>;
- States stand to endure a net loss of time, money and effort in their adoption of the Standards (states and districts may incur costs associated with aligning instructional materials, curricula and teacher professional development with the Standards);
- Standards alone will not improve student achievement; and
- Standards must be accompanied by rigorous curricula and formative tests that provide teachers with useful information about each student's growth toward meeting the Standards.

The MOU signed between states and consortia include the following drawbacks for states:

- Loss of autonomy over core content area assessments (all MOU require that, by the 2014-2015 school year, each state must employ the consortia's assessments for federal accountability purposes under the Elementary and Secondary Education Act/No Child Left Behind)<sup>25</sup>; and
- Costly implementation (because both consortia will require computer-based assessments states may incur an upfront cost to purchase or upgrade the needed technological infrastructure to deliver the assessments).

## Notes

1. National Governors Association, *Realizing the Potential: How Governors Can Lead Effective Implementation of the Common Core State Standards* (Washington, D.C.: NGA, 2011), 3.
2. Council of Chief State School Officers. *Common Core State Standards Communications Toolkit* (Washington, D.C.: CCSSO, 2011), 12.
3. National Governors Association Center for Best Practices and Council of Chief State School Officers, *About the Standards - Process*. (Washington, D.C.: NGA and CCSSO, 2011); <http://www.corestandards.org/about-the-standards/process>. The National Conference of State Legislatures was not involved in development of the Standards.
4. A summary of public comment can be found at <http://www.corestandards.org/assets/k-12-feedback-summary.pdf> and <http://www.corestandards.org/assets/CorePublicFeedback.pdf>.
5. Access information about the Standards at <http://www.corestandards.org/the-standards>.
6. Center for K-12 Assessment and Performance Management at ETS, *State Adoption of Common Core State Standards and Assessments: What Do States Gain and Give Up?* (Austin, Texas: Education Testing Service, 2011). Note: Minnesota adopted only the ELA standards.
7. National Governors Association Center for Best Practices and Council of Chief State School Officers, *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects* (Washington, D.C.: NGA and CCSSO, 2010), 6; [http://www.corestandards.org/assets/CCSSI\\_ELA%20Standards.pdf](http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf).
8. National Governors Association Center for Best Practices and Council of Chief State School Officers, *Common Core State Standards for Mathematics* (Washington, D.C.: NGA and CCSSO, 2010), 57; [http://www.corestandards.org/assets/CCSSI\\_Math%20Standards.pdf](http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf).
9. NGA and CCSSO, *Common Core State Standards for ELA*, 4.
10. National Governors Association Center for Best Practices and Council of Chief State School Officers, *Frequently Asked Questions* (Washington, D.C.: NGA and CCSSO, 2010); <http://www.corestandards.org/frequently-asked-questions>. For detailed information about individual criteria, visit <http://www.corestandards.org/assets/Criteria.pdf>.
11. Minnesota adopts standards for individual academic subjects on an annual cycle as dictated by statute. During the 2009-2010 school year, the statute authorized the Commissioner of Education to “revise and align the state’s academic standards and high school graduation requirements in language arts” only. Minnesota last revised is mathematics standards during the 2006-2007 school year. The state’s mathematics standards will not be reviewed again until the 2015-2016 school year. (See Minn. Stat. § 120B.023(2)).
12. U.S. Department of Education, “U.S. Secretary of Education Duncan Announces Winners of Competition to Improve Student Assessments,” press release, Sept. 2, 2010; <http://www.ed.gov/news/press-releases/us-secretary-education-duncan-announces-winners-competition-improve-student-asses>. The Department subsequently awarded supplementary \$15.86 million to both PARCC and Smarter Balanced to support states’ transition to Standards-aligned assessments. See also [http://www.parcconline.org/sites/parcc/files/Summary\\_PARCC\\_Supplemental\\_0.pdf](http://www.parcconline.org/sites/parcc/files/Summary_PARCC_Supplemental_0.pdf); and <http://www2.ed.gov/programs/racetothetop-assessment/awards.html>.
13. For more information about PARCC, visit <http://www.parcconline.org/>.
14. For more information about Smarter Balanced, visit <http://www.smarterbalanced.org/>.
15. For more information visit <http://www2.ed.gov/programs/racetothetop-assessment/awards.html>.
16. Dr. Pascal Forgione, “A Unique Moment in Time: Common Core State Standards and Aligned Common Assessments” (presentation at the National Conference of State Legislatures, *Reallocation of Scarce State Resources: A Seminar for Education Committee Chairs*, Denver, Colo., Nov. 12, 2011).
17. These projections are based upon PARCC’s calculation that the annual per student cost for both the ELA and mathematics assessments will cost \$19.08 if computers and humans equally score the assessments (or \$22.02 if only humans score them). Smarter Balanced projects the annual per student cost will be \$19.81 for its summative assessments (or \$27.31 if the formative assessments are included). Center for K-12 Assessment and Performance Management at ETS, *Coming Together to Raise Achievement: New Assessments for the Common Core State Standards* (Austin, Texas: Education Testing Service, April 2012).
18. K-12 Center at ETS, *State Adoption of Common Core State Standards and Assessments: What Do States Gain and Give Up?* (Austin, Texas: Education Testing Service, 2011).

(Continued on page 8)

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19. National Governors Association, *Realizing the Potential: How Governors Can Lead Effective Implementation of the Common Core State Standards*. (Washington, D.C.: NGA, 2011), 21.
20. Nancy Kober and Diane Stark Rentner, *Year Two of Implementing the Common Core State Standards: States' Progress and Challenges* (Washington, D.C.: Center on Education Policy, 2012), 7; <http://www.cep-dc.org/displayDocument.cfm?DocumentID=391>.
21. Sunny Deyé, "The Common Core State Standards Initiative," *LegisBrief* (National Conference of State Legislatures) 18, no. 15 (March 2010).
22. Chester E. Finn Jr., "The war against the Common Core," *Flypaper*, Michael J. Petrilli, ed. (The Thomas B. Fordham Institute. March 1, 2012); <http://www.edexcellence.net/commentary/education-gadfly-weekly/2012/march-1/the-war-against-the-common-core-1.html>.
23. As evidence of the federal government's creep toward a national curriculum, opponents cite three moves by the Department:
  - i) The Department included adoption and implementation of "common standards" as a weighted criterion in determining which states would win Race to the Top funding (see <http://www2.ed.gov/programs/racetothetop/tier1-technical-review.pdf>);
  - ii) In applications for waivers from the No Child Left Behind law, the Department heavily weighted adoption of college- and career-ready standards in considering whether to grant a waiver; and
  - iii) The Department is funding close to 99 percent of PARCC and Smarter Balanced to develop Standards-aligned assessments.

Some groups perceive the Standards to be a proxy for the "common standards" required under Race to the Top awards and No Child Left Behind waivers and that, through these programs, the Department is, at best, giving states an incentive or, at worst, coercing them to adopt and implement the Standards and their counterpart assessments. (See Chester E. Finn Jr., "The conservative case for the Common Core," *Flypaper*, Michael J. Petrilli, ed. (The Thomas B. Fordham Institution. March 8, 2012); <http://www.edexcellence.net/commentary/education-gadfly-weekly/2012/march-8/the-conservative-case-for-the-common-core-1.html>).
24. For example, a student beginning the 12th grade in 2014–2015, the target date for full implementation, may be a year behind in the new mathematics standards because his or her 11th grade mathematics courses were not yet aligned to the Standards. Many students may find themselves in a similar situation. States may need to enact policies that support students caught in this situation.
25. Smarter Balance Assessment Consortium, *Frequently Asked Questions* (Location of publication unknown: Smarter Balanced, 2012); <http://www.smarterbalanced.org/resources-events/faqs/>. MOUs allow states to supplement the Standards with their own state-specific standards so long as those standards comprise no more than 15 percent of both standards combined. Assessments will be individualized to account for each state's supplemental standards.



# NCSL

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The National Conference of State Legislatures is a bipartisan organization that serves the legislators and staffs of the nation's 50 states, its commonwealths and territories. NCSL provides research, technical assistance and opportunities for policymakers to exchange ideas on the most pressing state issues.

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## HOUSE ENROLLED ACT No. 1427

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SECTION 13. IC 20-19-2-14.5 IS ADDED TO THE INDIANA CODE AS A NEW SECTION TO READ AS FOLLOWS [EFFECTIVE UPON PASSAGE]: **Sec. 14.5. (a) As used in this section:**

(1) "common core standards" refers to educational standards developed for kindergarten through grade 12 by the Common Core State Standards Initiative; and

(2) "cut scores" means the scores that define a student's performance on an assessment, including passing, failing, or falling into a performance category.

(b) Notwithstanding section 14 of this chapter, after May 15, 2013, the state board may take no further actions to implement standards for the state or direct the department to implement any common core standards developed by the Common Core State Standards Initiative until the state board conducts a comprehensive evaluation of the common core standards as provided in this section. Any common core standards adopted by the state board before May 15, 2013, remain in effect until the state board adopts educational standards under subsection (c).

(c) Before July 1, 2014, the state board shall adopt college and career readiness educational standards. The educational standards must meet national and international benchmarks for college and career readiness standards and be aligned with postsecondary educational expectations. The state board shall implement educational standards that use the common core standards as the base model for academic standards to the extent necessary to comply with federal standards to receive a flexibility waiver under 20 U.S.C. 7861. However, higher academic standards may be adopted that supplement or supplant the common core standards if the higher educational standards would qualify for a flexibility waiver under 20 U.S.C. 7861 because the higher educational standards meet United States Department of Education flexibility



waiver requirements that ensure college and career readiness of students.

(d) The educational standards may not be adopted under subsection (c) until:

(1) the state board has received and considers:

(A) the department's evaluation of the common core under subsection (e);

(B) the final report of the legislative study committee established under subsection (f);

(C) the fiscal impact statement prepared by the office of management and budget under subsection (g); and

(2) the state board holds at least three (3) public meetings and takes public testimony regarding the adoption of educational standards after the state board has received and considered the information described in subdivision (1).

(e) Before July 1, 2013, the department shall provide a written evaluation of the common core standards to the:

(1) governor;

(2) legislative council;

(3) state board; and

(4) chairperson of the legislative study committee established in subsection (f).

The evaluation must be provided in an electronic format as provided under IC 5-14-6.

(f) The legislative council shall establish a legislative study committee to study issues relating to common core standards or other standards. Not later than November 1, 2013, the legislative committee shall submit the committee's final report to the legislative council, governor, department, and state board. The report must:

(1) compare existing Indiana standards with the common core standards;

(2) consider best practices in developing and adopting the standards, seeking information from a broad range of sources, including:

(A) subject area teachers from elementary and secondary schools in Indiana;

(B) subject area instructors and experts from postsecondary educational institutions; and

(C) any other standards the study committee considers to



be superior standards; and

- (3) evaluate the cost to the state or school corporations associated with implementing Partnership for Assessment of Readiness for College and Careers assessment or the Smarter Balanced assessment by schools.

The legislative study committee shall operate under the policies governing study committees adopted by the legislative council. The study committee shall hold at least three (3) public meetings.

(g) Before September 1, 2013, the office of management and budget established by IC 4-3-22-3, in consultation with the state board, shall provide an opinion concerning the fiscal impact to the state and school corporations if the state board:

- (1) fully implements the common core standards; and  
(2) discontinues the implementation of the common core standards.

The office of management and budget must provide its opinion in an electronic format under IC 5-14-6 to the governor, legislative council, and state board.

(h) The department shall administer ISTEP assessments under IC 20-32-5 during the 2013-2015 biennium. The state board may not require the use of the Partnership for Assessment of Readiness for College and Careers assessment or the Smarter Balanced assessment by schools until the state board receives and considers the reports received under subsections (e) through (g). This section does not remove academic standards developed or implemented by the state board before July 1, 2013.

(i) This subsection does not apply to an agreement with the United States Department of Education concerning a waiver from federal requirements. After June 30, 2013, the state, or the state board on behalf of the state, may not enter into or renew an agreement with any organization, entity, group, or consortium that requires the state to cede any measure of autonomy or control of education standards and assessments, including cut scores.

(j) The state board may adopt emergency rules in the manner provided in IC 4-22-2-37.1 to implement this section. As provided in IC 4-22-2-37.1 for an emergency rule adopted under this section to be effective after one (1) extension period, the rule must be adopted in conformity with the procedures under IC 4-22-2-24 through IC 4-22-2-36.





**Indiana  
Department of Education**

**Glenda Ritz, NBCT**  
Indiana Superintendent of Public Instruction

**Indiana Department of Education**  
**Evaluation of the Common Core State Standards**  
**(CCSS)**

**June 29, 2013**

### Authority for this Evaluation

In pertinent part, Section 13 of House Enrolled Act 1427 requires the Indiana Department of Education to do the following:

*(e) Before July 1, 2013, the department shall provide a written evaluation of the common core standards to the:*

*(1) governor;*

*(2) legislative council;*

*(3) state board; and*

*(4) chairperson of the legislative study committee established in subsection (f).*

*The evaluation must be provided in an electronic format as provided under IC 5-14-6.*

The submission of this electronic document to the aforementioned parties is intended to satisfy this requirement.

## Current Reality

The Indiana Department of Education (IDOE), the State Board of Education (SBOE), and the Indiana General Assembly have affirmed that Indiana's standards must be deemed college and career ready. House Enrolled Act 1427(c) requires members of the State Board of Education to "...adopt college and career ready educational standards..." by July 1, 2014. That subsection of law also specifies that the new standards "...must meet national and international benchmarks for college and career readiness standards and be aligned with postsecondary educational expectations."

According to the Indiana Commission for Higher Education, nearly 1/3 of all 2011 high school graduates attending postsecondary schools in Indiana required costly remediation.<sup>1</sup>

In 2004, Indiana University's Center for Evaluation & Education Policy issued a brief highlighting the need for high school redesign to ensure students are academically prepared for the workforce as well as for college level academic content.<sup>2</sup>

We know that Indiana's jobs of today and tomorrow require postsecondary education and training more than ever. Nearly two-thirds of all new jobs require at least some postsecondary education.<sup>3</sup> In the past, workers could obtain high paying jobs without higher education. This has become more of an exception than a rule. Without sufficient preparation, Hoosier students will struggle to access good jobs in the increasingly competitive global economy. Indiana's international standing in its percentage of adults aged 25-64 possessing an Associate degree or higher, leaves plenty room for growth. Only 33 percent of our population holds a two-year degree or more.

<sup>1</sup> Indiana Commission for Higher Education, "Indiana College Readiness Report" (2013).

<http://www.in.gov/che/files/StateofIndiana.pdf>

<sup>2</sup> [http://ceep.indiana.edu/projects/PDF/Re-designing\\_HS\\_PB.pdf](http://ceep.indiana.edu/projects/PDF/Re-designing_HS_PB.pdf).

<sup>3</sup> Indiana Commission for Higher Education "Reaching Higher Overview" [http://www.in.gov/che/files/2012\\_RHAM\\_8\\_23\\_12.pdf](http://www.in.gov/che/files/2012_RHAM_8_23_12.pdf).

## Key Definitions

- **Standards**—Standards specify what students across the state should know and be able to demonstrate at each grade level. Standards are ultimately recommended by the Indiana Education Roundtable and adopted by the Indiana State Board of Education. *Standards do not dictate how teachers teach.*
- **Curriculum**—Curriculum is a prescribed learning plan toward educational goals that includes instructional content, resources and materials, and a means by which to measure attainment. Curriculum is determined locally by a corporation or school.
- **Instruction**—Instruction is the act, practice, or process of structured knowledge transfer from teacher to student. Instruction is determined locally at the corporation or school level. *Instruction is how teachers teach.*
- **College- and Career-Ready Standards**—The U.S. Department of Education defines college- and career-ready standards as "Content standards for kindergarten through 12th grade that build towards college- and career-ready graduation requirements by the time of high school graduation. A State's college- and career-ready standards must be either (1) standards that are common to a significant number of States, or (2) standards that are approved by a State network of institutions of higher education, which must certify that students who meet the standards will not need remedial course work at the postsecondary level."

## **Adoption of the Common Core State Standards: Indiana's Process**

The Common Core State Standards (CCSS) are a particular set of K-12 standards in English/language arts and mathematics resulting from the Common Core State Standards Initiative (CCSSI). The CCSS are copyrighted. They delineate what students should know at each grade level, and they describe skills students must acquire to stay on course each year for college and career readiness.

Indiana joined the CCSSI in June of 2009, launching the IDOE's 19-month analysis of the standards with the help of educators across the state. Upon review and recommendation by the Indiana Education Roundtable, the State Board of Education officially adopted the Common Core State Standards in English/language arts, literacy and mathematics as Indiana's standards in August of 2010.

The U.S. Department of Education has deemed the CCSS to be college and career ready. The federal Elementary and Secondary Education Act of 2001 (No Child Left Behind) includes "standards" (Sec. 1111, a) as a component of the State Plan, under which are subject to secretarial approval and peer review (Sec. 1111, e).

In November of 2007, discussions on the virtues of common college- and career-ready standards began between state education leaders at the Annual Policy Forum for the Council for Chief State School Officers (CCSSO). With the help of the country's leading national experts and educators in the content areas of English/language arts and literacy and mathematics, CCSSO and the National Governor's Association (NGA) coordinated a multi-state effort formally known as the Common Core State Standards Initiative (CCSSI). The objective of this multi-state initiative was to identify what students should know and demonstrate to be deemed college and career ready.

This work culminated in the release of the Common Core State Standards (CCSS) for mathematics and English/language arts and literacy in 2010. Since then, 45 states (including Indiana), the District of Columbia, and three territories have adopted the standards. The Common Core State Standards in these subjects are currently Indiana's standards, having been reviewed and recommended by the Indiana Education Roundtable and formally adopted by the Indiana State Board of Education in August of 2010. As a set of standards – not a curriculum – corporations and schools are left to determine locally what curriculum, instruction, and instructional materials to use in teaching the CCSS.

All teachers are teaching CCSS, and teachers in grades 2-12 are also teaching some identified Indiana Academic Standards in order to assure alignment of standards with our ISTEP+ assessment during a period of transition. Schools across Indiana began implementing the CCSS in kindergarten classrooms during the 2011-2012 school year. Since then, educators and administrators have worked toward teaching only CCSS in these subjects in all grades by the 2014-2015 school year.

Schools have made investments in textbooks, electronic content, and instructional materials aligned to the CCSS. Teachers and administrators have acquired professional development on the new standards, and made significant instructional shifts in teaching.

The following timeline identifies the steps the IDOE took towards adoption and implementation of the CCSS.

### **June 2009**

- ✓ Indiana joined the CCSSO initiative of governors and state commissioners/state superintendents of education in 48 states (Texas and Alaska did not participate) to create a common, college- and career-ready set of academic standards for mathematics and English/language arts that could be utilized by any state.

### **October 2009 – January 2010**

- ✓ IDOE worked with Indiana educators to create a comparison, by grade, of Indiana Academic Standards and the first draft of the CCSS for English/language arts and math.

### **January and February 2010**

- ✓ IDOE staff reviewed and provided two rounds of feedback on the draft standards to CCSSO. Indiana's specific feedback can be found in the January memo and February memo. These memos were distributed via the IDOE's SAMS/PAMS e-blast to Indiana superintendents and principals.
- ✓ Indiana's Academic Standards were used as exemplars for the drafting of common core standards, and members of IDOE staff were consulted throughout the drafting process.

### **February 2010**

- ✓ IDOE staff released a frequently-asked-questions document (FAQ) on the department's public website regarding CCSS.

### **March 2010**

- ✓ Indiana's 11-member State Board of Education (SBOE) reviewed a CCSS update. The SBOE March 3, 2010 meeting minutes are provided here.
- ✓ CCSSO released the draft K-12 standards for public comment on March 10, 2010. Hoosiers submitted 165 comments during this period. These comments were used in place of an IDOE/public review-led period.
- ✓ IDOE convened a team of educators from K-12 and higher education to review the revised draft standards and provide a third round of feedback to CCSSO on strengths and weaknesses. See the March memo.

### **April 2010**

- ✓ Indiana's SBOE announced it would vote on adoption of the CCSS in August of 2010. Indiana Code 20-31-3-1 expressly authorizes the SBOE to adopt academic standards for each grade level, K-12.

### **May 2010**

- ✓ The Superintendent of Public Instruction and IDOE staff launched the Surveys of Enacted Curriculum pertaining to the content and rigor shifts required by the CCSS.
- ✓ In preparing the members of the Indiana Education Roundtable (IER) for their consideration of whether to recommend the adoption of the Common Core Standards, IDOE staff briefed members of the Indiana Education Roundtable (see agenda and minutes) on analysis from

Indiana educators and IDOE staff on the quality of the CCSS. Indiana Code 20-31-3-5 expressly authorizes the Indiana Education Roundtable to recommend the adoption of new state standards.

### **June 2010**

- ✓ The Superintendent of Public Instruction noted during the SBOE meeting that the National Governor's Association and the Council of Chief State School Officers would release the final version of the CCSS after review of nearly 10,000 comments from states across the country, including Indiana.
- ✓ IDOE staff created toolboxes for the CCSS, by grade, for math and English/language arts.

### **July 2010**

- ✓ A subsequent analysis was completed by IDOE for the final released CCSS documents using materials provided by Achieve, Inc.,<sup>4</sup> and the results of this analysis were presented to members of the Education Roundtable and the State Board of Education to assist with each body's respective decisions on adoption of the common core standards.
- ✓ IDOE mathematics and English/language arts specialists were invited to provide an in-depth content analysis of the CCSS, using the Surveys of Enacted Curriculum.
- ✓ Indiana's State Superintendent of Public Instruction selected a professional cabinet of 60 educators to develop grade-specific curriculum maps.

### **August 2010**

- ✓ The Indiana Education Roundtable recommended the adoption of the CCSS.
- ✓ IDOE staff presented a final overview of the CCSS to the members of the SBOE.
- ✓ The SBOE voted unanimously to adopt the CCSS as Indiana's standards for mathematics, English/language arts and grades 6-12 literacy for social studies, history, science and technical subjects.

### **December 2010**

- ✓ Indiana became the first state in the nation to align its teacher preparation standards with the CCSS and to require colleges to incorporate these standards into their pre-service preparation programs. The then-Indiana Professional Standards Advisory Board, in conjunction with the IDOE, approved the new developmental and content standards for educators. Educators from K-12 and higher education participated in the development of the new teacher preparation standards.

### **School Year 2011-2012 – School Year 2012-2013**

- ✓ Transitioning from one set of standards to another requires a great deal of planning and communication to educators, administrators, and families to ensure a smooth transition. The IDOE provided maps, guidance, tools, professional development, and resources to ensure an effective transition from IAS math and E/LA standards to the commensurate CCSS standards. Transitioning to new standards also has a ripple effect on school communities. Curricula, lesson plans, professional development, textbooks, electronic content and instructional materials, locally-developed tests, report cards, and statewide assessments are

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<sup>4</sup> For more information, please visit Achieve's website at <http://www.achieve.org/>.

all linked to standards. For grade-by-grade guidance in English/language arts and mathematics, go to the IDOE's web-page found at:  
<http://www.doe.in.gov/achievement/curriculum/resources-implementing-indianas-common-core-standards>.

## **Implementing HEA 1427**

### **May – June 2013**

- ✓ The IDOE has already begun its work to implement HEA 1427. Attached is the IDOE guidance to schools for the 2013-2014 school year regarding HEA 1427 relating to Common Core State Standards.
- ✓ The IDOE has held three math summits across the state to begin dialogue on math standards, instruction, assessment, use of technology, delivery systems, earned credits, and teacher preparation & professional development – Plymouth (6/17), Huntingburg (6/20), and Indianapolis (6/27).

### **July 2013 – July 2014**

The IDOE is committed to adhering to requirements of HEA 1427, and IC 20-31-3 regarding the adoption of college- and career-ready standards. The IDOE intends to act as a full partner in helping move forward the following:

- ✓ The IDOE will work with the Office of Management and Budget to help prepare the fiscal impact statement due September 1, 2013 (per HEA 1427).
- ✓ State Superintendent Glenda Ritz will appoint an academic standards committee in math prior to October 1, 2013.
- ✓ State Superintendent Glenda Ritz will appoint an academic standards committee in English/language arts prior to October 1, 2013.
- ✓ The IDOE will participate in educational standards hearings held by the Legislative Study Committee by November 1, 2013 (per HEA 1427).
- ✓ The IDOE will hold an electronic public review of proposed standards.
- ✓ The IDOE will assist the SBOE in conducting three (3) required public meetings regarding educational standards (per HEA 1427).
- ✓ The IDOE and the academic standards committees will submit recommendations on college- and career-ready standards to the Indiana Education Roundtable.
- ✓ The Indiana Education Roundtable will make recommendations regarding college- and career-ready standards to the State Board of Education.
- ✓ The State Board of Education will adopt college- and career-ready standards by July 1, 2014.

IDOE looks forward to engaging in rich dialogue with the citizens of Indiana regarding college- and career-ready standards that will help enable Indiana's students to be internationally competitive. The IDOE recognizes that it is not the sole actor in this matter, and that state standards are not developed, approved and implemented by the department alone. Rather, standards come about through collaboration among the IDOE, the public, educators from pre-K through postsecondary, the Education Roundtable and the State Board of Education.

## **Additional Resources**

Common Core State Standards –

<https://learningconnection.doe.in.gov/Standards/PrintLibrary.aspx>

Common Core State Standards Appendix A (Grade Level Appropriate Text/Text Complexity) –

[http://www.corestandards.org/assets/Appendix\\_A.pdf](http://www.corestandards.org/assets/Appendix_A.pdf)

Common Core State Standards Appendix B (Grade Level Appropriate Text/Text Complexity) –

[http://www.corestandards.org/assets/Appendix\\_B.pdf](http://www.corestandards.org/assets/Appendix_B.pdf)

Common Core State Standards Appendix C (Writing) –

[http://www.corestandards.org/assets/Appendix\\_C.pdf](http://www.corestandards.org/assets/Appendix_C.pdf)

Common Core State Standards Initiative - <http://www.corestandards.org/>

Comparison tables created by the IDOE comparing CCSS, IAS and international

[English/language arts](#) and [math](#) standards

Elementary and Secondary Education Act of 2001 (No Child Left Behind) -

<http://www2.ed.gov/nclb/landing.jhtml>

IDOE documents regarding Common Core State Standards -

<http://www.doe.in.gov/achievement/curriculum/resources-implementing-indianas-common-core-standards>

Indiana's Academic Standards -

<https://learningconnection.doe.in.gov/Standards/PrintLibrary.aspx>

Indiana State Reading List (Grade Level Appropriate Text) –

<https://learningconnection.doe.in.gov/Standards/PrintLibrary.aspx>

TIMSS Framework -

[http://timssandpirls.bc.edu/timss2011/downloads/TIMSS2011\\_Frameworks-Chapter1.pdf](http://timssandpirls.bc.edu/timss2011/downloads/TIMSS2011_Frameworks-Chapter1.pdf)

### **Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis**

**This document can be used to assist educators in analyzing the commonalities and differences between Indiana's Common Core Standards (INCC) and the Indiana Academic Standards (IAS). In particular, for schools teaching INCC, this document can be used to help identify IAS that do not align or only partially align with INCC. Students must be given the opportunity to learn the IAS as they will be assessed on these standards through the 2013-14 school year.**

**The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.**

**At the end of this document, we have listed the IAS Grade 1 indicators that are not aligned to the Grade 1 INCC. These are presented in two ways: (1) IAS Grade 1 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 1 indicators that do not match any INCC.**

Grade 1 Indiana's Common Core Standards (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<b>Operations and Algebraic Thinking</b>		
<b>Represent and solve problems involving addition and subtraction.</b>		
<p><b>1.OA.1</b> 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.</p>	<p><b>1.3.1</b> Write and solve number sentences from problem situations involving addition and subtraction.</p>	<p>INCC 1.OA.1 requires using a symbol for an unknown number in an equation and addition and subtraction within 20 using unknowns in all positions.</p>
<p><b>1.OA.2</b> 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.</p>	<p><b>1.3.1</b> Write and solve number sentences from problem situations involving addition and subtraction.</p>	<p>INCC 1.OA.2 requires addition of 3 whole numbers whose sum is less than or equal to 20. Use of equations with symbols for the unknown number is also required.</p>
<b>Understand and apply properties of operations and the relationship between addition and subtraction.</b>		
<p><b>1.OA.3</b> Apply properties of operations as strategies to add and subtract. <i>(Footnote: Students need not use formal terms for these properties.)</i> Examples: If <math>8 + 3 = 11</math> is known, then <math>3 + 8 = 11</math> is also known. <i>(Commutative property of addition.)</i> To add <math>2 + 6 + 4</math>, the second two numbers can be added to make a ten, so <math>2 + 6 + 4 = 2 + 10 = 12</math>. <i>(Associative property of addition.)</i></p>	<b>NEW</b>	<p>Extension of IAS 1.2.6. IAS 1.2.6 requires students to understand the role of zero in addition and subtraction (Additive identity property of 0) INCC requires students to apply various properties of operations to add and subtract.</p>

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<p><b>1.OA.4</b> Understand subtraction as an unknown-addend problem. <i>For example, subtract <math>10 - 8</math> by finding the number that makes 10 when added to 8.</i></p>	<p><b>1.2.7</b> Understand and use the inverse relationship between addition and subtraction facts (such as <math>4 + 2 = 6</math>, <math>6 - 2 = 4</math>, etc.) to solve simple problems.</p> <p><b>1.3.3</b> Recognize and use relationship between addition and subtraction.</p>	<p>IAS 1.2.7 &amp; 1.3.3 are prerequisite skills needed for students to understand subtraction as an unknown addend problem.</p>
<p><b>Add and subtract within 20.</b></p>		
<p><b>1.OA.5</b> Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).</p>	<p><b>1.2.1</b> Show the meaning of addition (putting together, increasing) using objects.</p> <p><b>1.2.2</b> Show the meaning of subtraction (taking away, comparing, finding the difference) using objects.</p>	<p>INCC 1.OA.5 relates counting to addition/subtraction. IAS 1.2.1 &amp; 1.2.2 illustrate INCC 1.OA.5 by using concrete objects.</p>
<p><b>Work with addition and subtraction equations.</b></p>		
<p><b>1.OA.7</b> 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? <math>6 = 6</math>, <math>7 = 8 - 1</math>, <math>5 + 2 = 2 + 5</math>, <math>4 + 1 = 5 + 2</math>.</p>	<p style="text-align: center;"><b>NEW</b></p>	<p>Extension of IAS 1.2.5. INCC 1.OA.7 requires students to determine if equations are true or false in addition to understanding the meaning of the equal sign.</p>
<p><b>1.OA.8</b> 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 <math>8 + ? = 11</math>, <math>5 = \_ - 3</math>, <math>6 + 6 = \_</math>.</p>	<p style="text-align: center;"><b>NEW</b></p>	

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<b>Number and Operations in Base Ten</b>		
<b>Extend the counting sequence.</b>		
<p><b>1.NBT.1</b> 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.</p>	<p><b>1.1.1</b> Count, read and write whole numbers up to 100.</p>	<p>INCC 1.NBT.1 requires counting to 120 starting at any number and representing a number of objects with a written numeral</p>
<b>Understand place value.</b>		
<p><b>1.NBT.2</b> Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases (1NBT.2a,b):</p>	<p><b>1.1.2</b> Count and group objects in ones and tens. <i>Example: Separate a group of 34 blocks into three groups of 10 blocks and 4 single blocks.</i></p>	
	<p><b>1.1.3</b> Identify the number of tens and ones in numbers less than 100. <i>Example: How many tens and how many ones are in 56? Explain your answer.</i></p>	
<p><b>1.NBT.2a</b> 10 can be thought of as a bundle of ten ones — called a “ten.”</p>	<p><b>1.1.2</b> Count and group objects in ones and tens. <i>Example: Separate a group of 34 blocks into three groups of 10 blocks and 4 single blocks.</i></p>	
<p><b>1.NBT.2b</b> The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p><b>1.1.3</b> Identify the number of tens and ones in numbers less than 100. <i>Example: How many tens and how many ones are in 56? Explain your answer.</i></p>	<p>INCC 1.NBT.2b is limited to numbers 11 to 19.</p>
<p><b>1.NBT.2c</b> 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>	<p><b>1.1.3</b> Identify the number of tens and ones in numbers less than 100. <i>Example: How many tens and how many ones are in 56? Explain your answer.</i></p>	<p>INCC 1.NBT.2c is limited to the multiples of 10 from 10 - 90.</p>
<p><b>1.NBT.3</b> Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p>	<p><b>1.1.5</b> Compare whole numbers up to 10 and arrange them in numerical order. (Partial)</p>	<p>INCC 1.NBT.3 requires the comparison of two two digit numbers and requires the use of <math>&gt;</math>, <math>&lt;</math>, and <math>=</math> symbols.</p>

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<b>Use place value understanding and properties of operations to add and subtract.</b>		
<p><b>1.NBT.4</b> 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>	<b>NEW</b>	
<p><b>1.NBT.5</b> Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p>	<b>NEW</b>	
<p><b>1.NBT.6</b> 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>	<b>NEW</b>	

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<b>Measurement and Data</b>		
<b>Measure length indirectly and by iterating length units.</b>		
<b>1.MD.1</b> Order three objects by length; compare the lengths of two objects indirectly by using a third object.	<b>1.5.1</b> Measure the length of objects by repeating a nonstandard unit or a standard unit.	INCC 1.MD.1 requires ordering of three objects and the comparison of two objects.
<b>1.MD.2</b> 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.	<b>1.5.1</b> Measure the length of objects by repeating a nonstandard unit or a standard unit.  <b>1.5.2</b> Use different units to measure the length of the same object and predict whether the measure will be greater or smaller when a different unit is used.	INCC 1.MD.2 focuses on how to measure length and defines "length measurement" as the number of same-size units that span and object. INCC 1.MD.2 is limited to whole numbers of length units.
<b>Tell and write time.</b>		
<b>1.MD.3</b> Tell and write time in hours and half-hours using analog and digital clocks.	<b>1.5.6</b> Tell time to the nearest half-hour and relate time to events (before/after, shorter/longer).	INCC INCC 1.MD.3 includes telling and writing time in hours; but does not require the relation of time to events.
<b>Represent and interpret data.</b>		
<b>1.MD.4</b> 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.	<b>1.1.10</b> Represent, compare, and interpret data using pictures and picture graphs.	INCC 1.MD.4 specifies types of questions to ask and answer and does not require students to gather data. Limits up to 3 categories.

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<b>Geometry</b>		
<b>Reason with shapes and their attributes.</b>		
<p><b>1.G.1</b> Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); for a wide variety of shapes; build and draw shapes to possess defining attributes.</p>	<p><b>1.4.1</b> Identify, describe, compare, sort, and draw triangles, rectangles, squares, and circles.</p> <p><b>1.4.3</b> Classify and sort familiar plane and solid objects by position, shape, size, roundness, and other attributes. Explain the rule used.</p> <p><b>1.4.4</b> Identify objects as two-dimensional or three-dimensional.</p>	<p>INCC 1.G.1 emphasizes distinction between defining and non-defining attributes. IAS 1.4.1, 1.4.3, and 1.4.4 are more specific about the shapes and attributes to attend to.</p>
<p><b>1.G.2</b> 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. (Footnote: Students do not need to learn formal names such as “right rectangular prism.”)</p>	<p><b>NEW</b></p>	
<p><b>1.G.3</b> 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.</p>	<p><b>1.1.8</b> For a shape divided into 8 or fewer congruent (matching) parts, describe a shaded portion as “__ out of __ parts” and write the fraction.</p>	<p>INCC 1.G.3 is limited to halves, fourths, and quarters and requires students to use the terms “half (of), fourth (of), and quarter (of).” IAS 1.1.8 requires students to use the terms “__ out of __ parts.”</p>

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
<b>IAS Grade 1 Standards Not Matched by INCC</b>		
No match in INCC Grade 1.	<b>1.1.4</b> Name the number that is one more than or one less than any number up to 100.	INCC Grade K (K.CC.4c) partial match
No match in INCC.	<b>1.1.6</b> Match the number names (first, second, third, etc.) with an ordered set of up to 10 items.	
No match in INCC Grade 1.	<b>1.1.7</b> Recognize when a shape is divided into congruent (matching) parts.	These concepts are moved to Grade 8 at a more complex level.
No match in INCC.	<b>1.1.9</b> For a set of 8 or fewer objects, describe a subset as “__ out of __ parts” and write the fraction.	
No match in INCC Grade 1.	<b>1.2.3</b> Show equivalent forms of the same number (up to 20) using objects, diagrams, and numbers.	INCC Grade K (K.OA.3)
Not specifically part of INCC.	<b>1.3.2</b> Create word problems that match given number sentences involving addition and subtraction.	
Not specifically part of INCC.	<b>1.3.4</b> Create and extend number patterns using addition.	
No match in INCC Grade 1.	<b>1.4.2</b> Identify triangles, rectangles, squares, and circles as the faces* of three-dimensional objects.	INCC Grade 2 ( 2.G.1) partial match
No match in INCC.	<b>1.4.5</b> Give and follow directions for finding a place or object.	
No match in INCC.	<b>1.4.6</b> Arrange and describe objects in space by position and direction: near, far, under, over, up, down, behind, in front of, next to, to the left or right of.	
No match in INCC.	<b>1.4.7</b> Identify geometric shapes and structures in the environment and specify their location.	
No match in INCC.	<b>1.5.3</b> Recognize the need for a fixed unit of length.	

Grade 1 Common Core State Standard (INCC)	Grade 1 Indiana Academic Standard (IAS)	Comment
No match in INCC Grade 1.	1.5.4 Measure and estimate the length of an object to the nearest inch and centimeter.	INCC Grade 2 (2.MD.3)
No match in INCC K-2.	1.5.5 Compare and order objects according to area, capacity, weight, and temperature, using direct comparison or a nonstandard unit.	These concepts are moved to Grade 3 at a more complex level.
No match in INCC Grade 1.	1.5.7 Identify and give the values of collections of pennies, nickels, and dimes.	INCC Grade 2 ( 2.MD.8)

## Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis

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The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.

At the end of this document, we have listed the IAS Grade 2 indicators that are not aligned to the Grade 2 INCC. These are presented in two ways: (1) IAS Grade 2 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 2 indicators that do not match any INCC.

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<b>Operations and Algebraic Thinking</b>		
<b>Represent and solve problems involving addition and subtraction.</b>		
<p><b>2.OA.1</b> 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. <i>(Footnote: See Glossary, Table 1)</i></p>	<p><b>2.2.2</b> Add two whole numbers less than 100 with and without regrouping.</p> <p><b>2.2.3</b> Subtract two whole numbers less than 100 without regrouping.</p> <p><b>2.3.1</b> Relate problem situations to number sentences involving addition and subtraction.</p>	<p>INCC 2.OA.1 includes two-step word problems and focuses on using unknowns in all positions with a symbol for the unknown number to represent the problem</p>
<b>Add and subtract within 20.</b>		
<p><b>2.OA.2</b> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. <i>(Footnote: See 1.AO.6 for a list of mental strategies)</i></p>	<p><b>2.2.4</b> Understand and use the inverse relationship between addition and subtraction.</p>	<p>INCC 2.OA.2 explicitly teaches mental math strategies and requires mastery within 20. The use of the inverse relationship between addition and subtraction as stated in IAS 2.2.4 serves as one of several possible mental strategies.</p>
<b>Work with equal groups of objects to gain foundations for multiplication.</b>		
<p><b>2.OA.3</b> 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.</p>	<p><b>2.1.7</b> Identify odd and even numbers up to 100.</p> <p><b>2.1.1</b> Count by ones, twos, fives and tens to 100.</p>	<p>INCC 2.OA.3 requires students to write an equation to express an even number as a sum of equal addends (<math>5 + 5 = 10</math>). INCC specifies using groups up to 20.</p>
<p><b>2.OA.4</b> 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.</p>	<b>NEW</b>	

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<b>Number and Operations in Base Ten</b>		
<b>Understand place value.</b>		
<p><b>2.NBT.1</b> 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><b>2.1.3</b> Identify numbers up to 100 in various combinations of tens and ones.</p>	<p>INCC 2.NBT.1 goes beyond 100. INCC requires the understanding of a three-digit number</p>
<p><b>2.NBT.1a</b> 100 can be thought of as a bundle of ten tens — called a “hundred.”</p>	NEW	
<p><b>2.NBT.1b</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>	NEW	
<p><b>2.NBT.2</b> Count within 1000; skip-count by 5s, 10s, and 100s.</p>	<p><b>2.1.1</b> Count by ones, twos, fives and tens to 100.</p>	<p>INCC 2.NBT.2 requires counting within 1000. Additionally, students are required to count by 100s.</p>
<p><b>2.NBT.3</b> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p>	NEW	
<p><b>2.NBT.4</b> Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p>	<p><b>2.1.5</b> Compare whole numbers up to 100 and arrange them in numerical order.</p>	<p>INCC 2.NBT.4 requires the comparisons of two three-digit numbers.</p>
<b>Use place value understanding and properties of operations to add and subtract.</b>		
<p><b>2.NBT.5</b> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p><b>2.2.2</b> Add two whole numbers less than 100 with and without regrouping</p>	<p>INCC 2.NBT.5 requires addition and subtraction within 100 with and without regrouping.</p>
	<p><b>2.2.3</b> Subtract two whole numbers less than 100 without regrouping.</p>	
	<p><b>2.2.4</b> Understand and use the inverse relationship between addition and subtraction.</p>	
	<p><b>2.3.2</b> Use the commutative and associative properties for addition to simplify mental calculations and to check results.</p>	

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<p><b>2.NBT.6</b> Add up to four two-digit numbers using strategies based on place value and properties of operations.</p>	<p><b>2.2.2</b> Add two whole numbers less than 100 with and without regrouping.</p> <p><b>2.2.3</b> Subtract two whole numbers less than 100 without regrouping.</p> <p><b>2.2.5</b> Use estimation to decide whether answers are reasonable in addition problems.</p>	<p>INCC 2.NBT.6 requires addition of up to four 2-digit numbers.</p>
<p><b>2.NBT.7</b> 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.</p>	<p><b>2.2.2</b> Add two whole numbers less than 100 with and without regrouping.</p> <p><b>2.2.3</b> Subtract two whole numbers less than 100 without regrouping.</p> <p><b>2.2.4</b> Understand and use the inverse relationship between addition and subtraction.</p> <p><b>2.3.2</b> Use the commutative and associative properties for addition to simplify mental calculations and to check results.</p>	<p>INCC 2.NBT.7 requires the use of concrete models, drawings, and strategies based on place value to perform and understand addition or subtraction within 1000.</p>
<p><b>2.NBT.8</b> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.</p>	<p><b>2.1.4</b> Find the number that is ten more or ten less than any number 10 through 90.</p> <p><b>2.2.6</b> Use mental arithmetic to add or subtract 0, 1, 2, 3, 4, 5, or 10 with numbers less than 100.</p>	<p>INCC 2.NBT.8 requires the use of mental arithmetic to add or subtract 10 or 100 to a given number 100-900.</p>
<p><b>2.NBT.9</b> Explain why addition and subtraction strategies work, using place value and the properties of operations. <i>(Footnote: Explanations may be supported by drawings or objects.)</i></p>	<p><b>NEW</b></p>	<p><b>NEW</b></p>

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<b>Measurement and Data</b>		
<b>Measure and estimate lengths in standard units.</b>		
2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	NEW	
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.	2.5.1 Measure and estimate length to the nearest inch, foot, yard, centimeter, and meter. 2.5.2 Describe the relationships among inch, foot, and yard. Describe the relationship between centimeter and meter. 2.5.3 Decide which unit of length is most appropriate in a given situation.	INCC 2.MD.2 requires the comparison of two measurements and their relation to the size of the unit chosen.
2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	2.5.1 Measure and estimate length to the nearest inch, foot, yard, centimeter, and meter.	
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.	NEW	
<b>Relate addition and subtraction to length.</b>		
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.	NEW	
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.	NEW	

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<b>Work with time and money.</b>		
<b>2.MD.7</b> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	<b>2.5.9</b> Tell time to the nearest quarter hour, be able to tell five minute intervals, and know the difference between a.m. and p.m.	INCC 2.MD.7 requires telling time to the nearest five minutes.
<b>2.MD.8</b> 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?	<b>2.5.12</b> Find the value of a collection of pennies, nickels, dimes, quarter, half-dollars, and dollars.	INCC 2.MD.8 specifies use of word problems and appropriate use of symbols.
<b>Represent and interpret data.</b>		
<b>2.MD.9</b> 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.	<b>NEW</b>	
<b>2.MD.10</b> 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. <i>(Footnote:</i>	<b>2.1.11</b> Collect and record numerical data in systematic ways.  <b>2.1.12</b> Represent, compare, and interpret data using tables, tally charts, and bar graphs.	INCC 2.MD.10 focuses on picture and bar graphs to represent a data set with up to four categories.

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<b>Geometry</b>		
<b>Reason with shapes and their attributes.</b>		
<p><b>2.G.1</b> 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. <i>(Footnote: Sizes are compared directly or visually, not compared by measuring.)</i></p>	<p><b>2.4.2</b> Describe, classify, and sort plane and solid geometric shapes (triangle, square, rectangle, cube, rectangular prism) according to the number and shape of faces and the number of sides, edges, and/or vertices.</p>	<p>INCC 2.G.1 requires the recognition and drawing of shapes having the specified attribute of a given number of angles. CSSS also requires the identification of quadrilaterals, pentagons, and hexagons.</p>
<p><b>2.G.2</b> Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p>	NEW	
<p><b>2.G.3</b> 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.</p>	NEW	

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
<b>IAS Grade 2 Standards Not Matched by INCC</b>		
No match in INCC.	<b>2.1.2</b> Identify the pattern of numbers in each group of ten, from tens through nineties.	
No match in INCC.	<b>2.1.6</b> Match the number names (first, second, third, etc.) with an ordered set of up to 100 items.	
No match in INCC Grade 2.	<b>2.1.8</b> Recognize fractions as parts of a whole or parts of a group (up to 12 parts).	INCC Grade 3 ( 3.NF.1)
No match in INCC Grade 2.	<b>2.1.9</b> Recognize, name, and compare the unit fractions: 1/2, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, and 1/12.	INCC Grade 3 Critical Area 2
No match in INCC Grade 2.	<b>2.1.10</b> Know that, when all fractional parts are included, the result is equal to the whole and to one.	INCC Grade 3 ( 3.NF.3c)
No match in INCC Grade 2.	<b>2.2.1</b> Model addition of numbers less than 100 with objects and pictures.	INCC Grade 1 (1.NBT.4)
No match in INCC.	<b>2.3.3</b> Recognize and extend a linear pattern by its rules.	
No match in INCC.	<b>2.3.4</b> Create, describe, and extend number patterns using addition and subtraction.	
No match in INCC Grade 2.	<b>2.4.1</b> Construct squares, rectangles, triangles, cubes, and rectangular prisms with appropriate materials.	INCC Grade 1 ( 1.G.2)
No match in INCC Grade 2.	<b>2.4.3</b> Investigate and predict the result of putting together and taking apart two-dimensional and three-dimensional shapes.	INCC Grade 1 (1.G.2)
No match in INCC.	<b>2.4.5</b> Recognize geometric shapes and structures in the environment and specify their locations.	
No match in INCC Grade 2.	<b>2.5.4</b> Estimate area and use a given object to measure the area of other objects.	INCC Grade 3 (3.MD.5)

Grade 2 Indiana's Common Core Standards (INCC)	Grade 2 Indiana Academic Standards (IAS)	Comment
No match in INCC.	2.5.5 Estimate and measure capacity using cups and pints.	
No match in INCC.	2.5.6 Estimate weight and use a given object to measure the weight of other objects.	
No match in INCC.	2.5.7 Recognize the need for a fixed unit of weight.	
No match in INCC.	2.5.8 Estimate temperature. Read a thermometer in Celsius and Fahrenheit.	
No match in INCC.	2.5.10 Know relationships of time: seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year.	
No match in INCC Grade 2.	2.5.11 Find the duration of intervals of time in hours.	INCC Grade 3 (3.MD.1)

**Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis**

This document can be used to assist educators in analyzing the commonalities and differences between Indiana's Common Core Standards (INCC) and the Indiana Academic Standards (IAS). In particular, for schools teaching INCC, this document can be used to help identify IAS that do not align or only partially align with INCC. Students must be given the opportunity to learn the IAS as they will be assessed on these standards through the 2013-14 school year.

The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.

At the end of this document, we have listed the IAS Grade 3 indicators that are not aligned to the Grade 3 INCC. These are presented in two ways: (1) IAS Grade 3 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 3 indicators that do not match any INCC.

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
<b>Operations and Algebraic Thinking</b>		
<b>Represent and solve problems involving multiplication and division.</b>		
<p><b>3.OA.1</b> Interpret products of whole numbers, e.g., interpret <math>5 \times 7</math> 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 <math>5 \times 7</math>.</i></p>	<p><b>3.2.2</b> Represent the concept of multiplication as repeated addition.</p>	<p>This aligns partially with IAS 3.2.2. INCC 3.OA.1 focuses on representing multiplication as groups of objects.</p>
<p><b>3.OA.2</b> Interpret whole-number quotients of whole numbers, e.g., interpret <math>56 \div 8</math> 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 <math>56 \div 8</math>.</i></p>	<p><b>3.2.3</b> Represent the concept of division as repeated subtraction, equal sharing,</p>	<p>This aligns partially with IAS 3.2.3. INCC 3.OA.3 does not require students to represent division as repeated subtraction.</p>
<p><b>3.OA.3</b> 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. (Footnote: See Glossary, Table 2.)</p>	<p><b>3.2.2</b> Represent the concept of multiplication as repeated addition.</p> <p><b>3.2.3</b> Represent the concept of division as repeated subtraction, equal sharing, and forming equal groups.</p>	<p>CCCS 3.OA.3 requires students to fluently multiply and divide within 100. INCC emphasizes word problems associated with this content. See table 2 on page 19 of the IN Common Core Standards document for common multiplication and division problems.</p>
<p><b>3.OA.4</b> 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 <math>8 \times ? = 48</math>, <math>5 = \_ \div 3</math>, <math>6 \times 6 = ?</math>.</i></p>	<b>NEW</b>	
<p><b>Understand properties of multiplication and the relationship between multiplication and division.</b></p>		
<p><b>3.OA.5</b> Apply properties of operations as strategies to multiply and divide. <i>Examples: If <math>6 \times 4 = 24</math> is known, then <math>4 \times 6 = 24</math> is also known. (Commutative property of multiplication.) <math>3 \times 5 \times 2</math> can be found by <math>3 \times 5 = 15</math> then <math>15 \times 2 = 30</math>, or by <math>5 \times 2 = 10</math> then <math>3 \times 10 = 30</math>. (Associative property of multiplication.) Knowing that <math>8 \times 5 = 40</math> and <math>8 \times 2 = 16</math>, one can find <math>8 \times 7</math> as <math>8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56</math>. (Distributive property.) (Footnote: Students need not use formal terms for these properties.)</i></p>	<p><b>3.3.4</b> Understand and use the commutative and associative properties of multiplication.</p>	<p>This aligns partially with IAS 3.3.4. INCC 3.OA.5 includes the distributive property. Students do not need to use formal terms for these properties. INCC requires students to use these properties as strategies when multiplying and dividing.</p>
<p><b>3.OA.6</b> Understand division as an unknown-factor problem. <i>For example, divide <math>32 \div 8</math> by finding the number that makes 32 when multiplied by 8.</i></p>	<p><b>3.2.4</b> Know and use the inverse relationship between multiplication and division facts, such as <math>6 \times 7 = 42</math>, <math>42 \div 7 = 6</math>, <math>7 \times 6 = 42</math>, <math>42 \div 6 = 7</math>.</p>	<p>INCC 3.OA.6 approaches division as unknown factor problems</p>

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
<b>Multiply and divide within 100.</b>		
<b>3.OA.7</b> 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 one-digit numbers.	<b>3.2.5</b> Show mastery of multiplication facts for 2, 5, and 10. <b>3.2.4</b> Know and use the inverse relationship between multiplication and division facts, such as $6 \times 7 = 42$ , $42 \div 7 = 6$ , $7 \times 6 = 42$ , $42 \div 6 = 7$ . <b>3.3.4</b> Understand and use the commutative and associative properties of multiplication.	Sufficient practice and support throughout the school year are needed to help students meet this fluency by the end of grade 3.
<b>Solve problems involving the four operations, and identify and explain patterns in arithmetic.</b>		
<b>3.OA.8</b> 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. <i>[Footnote: This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).]</i>	<b>3.2.7</b> Use estimation to decide whether answers are reasonable in addition and subtraction problems. <b>3.3.1</b> Represent relationships of quantities in the form of a numeric expression or equation. <b>3.3.2</b> Solve problems involving numeric equations. <b>3.3.3</b> Choose appropriate symbols for operations and relations to make a number sentence true.	INCC 3.OA.8 requires students to represent problems using equations with a letter standing for the unknown quantity. INCC 3.OA.8 specifies two-step word problems and their representation using equations, and includes properties of operations.
<b>3.OA.9</b> 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>	<b>3.3.5</b> Create, describe, and extend number patterns using multiplication. <b>3.3.6</b> Solve simple problems involving a functional relationship between two quantities. <b>3.6.4</b> Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.	INCC 3.OA.9 requires explanation of patterns using properties of operations.

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
<b>Number and Operations in Base Ten</b>		
<b>Use place value understanding and properties of operations to perform multi-digit arithmetic. (Footnote: A range of algorithms may be used.)</b>		
3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	3.1.6 Round numbers less than 1,000 to the nearest ten and the nearest hundred.	
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. (Footnote: A range of algorithms may be used.)	3.2.1 Add and subtract whole numbers up to 1,000 with or without regrouping, using relevant properties of the number system.	INCC 3.NBT.2 Sufficient practice and support throughout the year are needed to help students meet this fluency by the end of the school year.
3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., $9 \times 80$ , $5 \times 60$ ) using strategies based on place value and properties of	<b>NEW</b>	

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
<b>Number and Operations - Fractions</b> (Footnote: Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)		
<b>Develop understanding of fractions as numbers.</b>		
<b>3.NF.1</b> 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 $1/b$ .	<b>NEW</b>	IAS 3.1.9 (Identify and use correct names for numerators and denominators) should be taught as a part of INCC 3.NF.1. Denominators are limited to 2, 3, 4, 6, and 8 in Grade 3 INCC.
<b>3.NF.2</b> Understand a fraction as a number on the number line; represent fractions on a number line diagram.	<b>3.1.9</b> Identify and use correct names for numerators and denominators.  <b>3.3.7</b> Plot and label whole numbers on a number line up to 10.	This aligns partially with 3.1.9 and 3.3.7. INCC 3.NF.2 refers to understanding a fraction as a number and using a number line to represent fractions. Denominators are limited to 2, 3, 4, 6, and 8 in Grade 3 INCC.
<b>3.NF.2a</b> 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>NEW</b>	Denominators are limited to 2, 3, 4, 6, and 8 in Grade 3 INCC.
<b>3.NF.2b</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.	<b>NEW</b>	Denominators are limited to 2, 3, 4, 6, and 8 in Grade 3 INCC.
<b>3.NF.3</b> Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	<b>3.1.8</b> Show equivalent fractions using equal parts. <b>3.1.10</b> Given a pair of fractions, decide which is larger or smaller by using objects or pictures.	This aligns partially with IAS 3.1.8 and 3.1.10. INCC includes the number line and symbols to compare fractions. Denominators are limited to 2, 3, 4, 6, and 8 in Grade 3 INCC.
<b>3.NF.3a</b> Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	<b>3.1.8</b> Show equivalent fractions using equal parts.	INCC 3.NF.3 requires students to plot fractions on a number line and use their position to determine equivalence.
<b>3.NF.3b</b> Recognize and generate simple equivalent fractions (e.g., $1/2 = 2/4$ , $2/6 = 1/3$ ). Explain why the fractions are equivalent, e.g., by using a visual fraction model.	<b>3.1.8</b> Show equivalent fractions using equal parts.	INCC 3.NF.3 requires students to generate equivalent fractions and to explain the equivalence.
<b>3.NF.3c</b> Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. <i>Examples: Express 3 in the form <math>3 = 3/1</math>; recognize that <math>6/1 = 6</math>; locate <math>4/4</math> and 1 at the same point of a number line diagram.</i>	<b>NEW</b>	
<b>3.NF.3d</b> 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.	<b>3.1.10</b> Given a pair of fractions, decide which is larger or smaller by using objects or pictures.	INCC 3.NF.3 requires students to record the results of comparisons with the symbols $>$ , $=$ , or $<$ , and justify the conclusions, e.g., by using a visual fraction model.

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
<b>Measurement and Data</b>		
<b>Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.</b>		
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.	3.5.9 Tell time to the nearest minute and find how much time has elapsed.	INCC 3.MD.1 emphasizes solving word problems involving the addition and subtraction of time intervals in minutes.
3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). (Footnote: Excludes compound units such as $cm^3$ and finding the geometric volume of a container.) 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. (Footnote: Excludes multiplicative comparison problems (problems involving notions of "times as much." See Glossary, Table 2).)	3.5.6 Estimate and measure capacity using quarts, gallons, and liters.  3.5.7 Estimate and measure weight using pounds and kilograms.	This aligns partially with IAS 3.5.6 and 3.5.7. INCC excludes problems involving notions of "times as much" (see Table 2 on page 89 of INCC).
<b>Represent and interpret data.</b>		
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.	<b>NEW</b>	
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.	3.5.1 Measure line segments to the nearest half-inch.	This aligns partially with IAS 3.5.1. INCC measures to the nearest quarter inch and includes data representation.
<b>Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</b>		
3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.		
3.MD.5a 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.	3.5.4 Estimate or find the area of shapes by covering them with squares.	This aligns partially with IAS 3.5.4 and 4.5.5. INCC requires a more conceptual understanding of area. INCC emphasizes the use of "square unit."
3.MD.5b 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.		
3.MD.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	3.5.4 Estimate or find the area of shapes by covering them with squares.	
3.MD.7 Relate area to the operations of multiplication and addition.		
3.MD.7a 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.	3.5.4 Estimate or find the area of shapes by covering them with squares.	This aligns partially with IAS 3.5.4, 4.5.4, 4.5.5 and 4.5.7.
3.MD.7b 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.		

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
3.MD.7c 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.	3.5.4 Estimate or find the area of shapes by covering them with squares.	This aligns partially with IAS 3.5.4, 4.5.4, 4.5.5 and 4.5.7.
3.MD.7d 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.		
<b>Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</b>		
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 area or with the same area and different perimeter.	3.5.3 Find the perimeter of a polygon.	Extension of IAS 3.5.3. INCC emphasizes connection between area and perimeter; this is moved from IAS Grade 4 (4.5.6).
<b>Geometry</b>		
<b>Reason with shapes and their attributes:</b>		
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.	3.4.1 Identify quadrilaterals as four-sided shapes.	INCC includes nested categories, rhombuses; identifying quadrilaterals as 4-sided shapes moves to Grade 2 in INCC (2.G.1)
3.G.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 is 1/4 of the area of the shape.</i>	<b>NEW</b>	Dividing shapes into equal parts moved from IAS Grade 2 (2.1.8).

Grade 3 Indiana's Common Core Standards (INCC)	Grade 3 Indiana Academic Standards (IAS)	Comment
<del>IAS Grade 3 Standards Not Matched by INCC</del>		
Not matched in INCC Grade 3.	3.1.1 Count, read, and write whole numbers up to 1,000.	INCC Grade 2 (2.NBT.2, 2.NBT.3)
Not matched in INCC Grade 3.	3.1.2 Identify and interpret place value in whole numbers up to 1,000.	INCC Grade 2 (2.NBT.1)
Not matched in INCC Grade 3.	3.1.3 Use words, models, and expanded form to represent numbers up to 1,000.	INCC Grade 2 (2.NBT.3)
Not matched in INCC Grade 3.	3.1.4 Identify any number up to 1,000 in various combinations of hundreds, tens, and ones.	INCC Grade 2 (2.NBT.1, 2.NBT.4)
Not matched in INCC Grade 3.	3.1.5 Compare whole numbers up to 1,000 and arrange them in numerical order.	INCC Grade 2 (2.NBT.4)
Not matched in INCC Grade 3.	3.1.7 Identify odd and even numbers up to 1,000 and describe their characteristics	INCC Grade 2 (2.OA.3); no further mention of odd/even in INCC.
Not matched in INCC Grade 3.	3.1.11 Given a set of objects or a picture, name and write a decimal to represent tenths and hundredths.	INCC Grade 4 (4.NF.5, 4.NF.6, 4.NF.7)
Not matched in INCC Grade 3.	3.1.12 Given a decimal for tenths, show it as a fraction using a place-value model.	INCC Grade 4 (4.NF.6)
Not matched in INCC.	3.1.13 Interpret data displayed in a circle graph and answer questions about the situation.	Circle graphs not specifically mentioned in INCC.
Not matched in INCC Grade 3.	3.1.14 Identify whether everyday events are certain, likely, unlikely, or impossible.	Probability does not begin until Grade 6 in INCC and is covered in greater depth. Assessed in the classroom, not on ISTEP+.
Not matched in INCC Grade 3.	3.1.15 Record the possible outcomes for a simple probability experiment.	Probability does not begin until Grade 6 in INCC and is covered in greater depth.
Not matched in INCC Grade 3.	3.2.6 Add and subtract simple fractions with the same denominator.	INCC Grade 4 (4.NF.3)
Not matched in INCC.	3.2.8 Use mental arithmetic to add or subtract with numbers less than 100.	Assessed in the classroom, not on ISTEP+.
Not matched in INCC Grade 3.	3.3.7 Plot and label whole numbers on a number line up to 10.	INCC Grade 2 (2.MD.6)
Not matched in INCC Grade 3.	3.4.2 Identify right angles in shapes and objects and decide whether other angles are greater or less than a right angle.	INCC Grade 4 (4.MD.4 a&b, 4.MD.5, 4.MD.6, 4.MD.7)
Not matched in INCC Grade 3.	3.4.3 Identify, describe, and classify: cube, sphere, prism, pyramid, cone, and cylinder.	INCC Grade K (K.G.3)
Not matched in INCC Grade 3.	3.4.4 Identify common solid objects that are the parts needed to make a more complex solid object.	INCC Grade 1(1.G.2) Assessed in the classroom, not on ISTEP+.
Not matched in INCC Grade 3.	3.4.5 Draw a shape that is congruent to another shape.	These concepts are moved to Grade 8 at a more complex level.
Not matched in INCC Grade 3.	3.4.6 Use the terms point, line, and line segment in describing two-dimensional shapes.	INCC Grade 4 (4.G.1)
Not matched in INCC Grade 3.	3.4.7 Draw line segments and lines.	INCC Grade 4 (4.G.1)
Not matched in INCC Grade 3.	3.4.8 Identify and draw lines of symmetry in geometric shapes (by hand or using technology).	INCC Grade 4 (4.G.3)
Not matched in INCC Grade 3.	3.4.9 Sketch the mirror image reflections of shapes.	These concepts are moved to Grade 8 at a more complex level. Assessed in the classroom, not on ISTEP+.
Not matched in INCC.	3.4.10 Recognize geometric shapes and their properties in the environment and specify their locations.	Assessed in the classroom, not on ISTEP+.

Not matched in INCC Grade 3.	3.5.2 Add units of length that may require regrouping of inches to feet or centimeters to meters.	INCC Grade 4 (4.MD.2)
	3.5.3 Find the perimeter of a polygon.	
Not matched in INCC Grade 3.	3.5.5 Estimate or find the volumes of objects by counting the number of cubes that would fill them.	INCC Grade 5 (5.MD.4) Assessed in the classroom, not on ISTEP+.
Not matched in INCC.	3.5.8 Compare temperatures in Celsius and Fahrenheit.	Temperature is not part of INCC. Assessed in the classroom, not on ISTEP+.
Not matched in INCC Grade 3.	3.5.10 Find the value of any collection of coins and bills. Write amounts less than a dollar using the ¢ symbol and write larger amounts in decimal notation using the \$ symbol.	INCC Grade 2 (2.MD.8)
Not matched in INCC Grade 3.	3.5.11 Use play or real money to decide whether there is enough money to make a purchase.	INCC Grade 2 (2.MD.8)
Not matched in INCC Grade 3.	3.5.12 Carry out simple unit conversions within a measurement system (e.g., centimeters to meters, hours to minutes).	INCC Grade 4 (4.MD.1)

## **Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis**

**This document can be used to assist educators in analyzing the commonalities and differences between Indiana's Common Core Standards (INCC) and the Indiana Academic Standards (IAS). In particular, for schools teaching INCC, this document can be used to help identify IAS that do not align or only partially align with INCC. Students must be given the opportunity to learn the IAS as they will be assessed on these standards through the 2013-14 school year.**

**The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.**

**At the end of this document, we have listed the IAS Grade 4 indicators that are not aligned to the Grade 4 INCC. These are presented in two ways: (1) IAS Grade 4 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 4 indicators that do not match any INCC.**

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Operations and Algebraic Thinking</b>		
<b>Use the four operations with whole numbers to solve problems.</b>		
<p><b>4.OA.1</b> Interpret a multiplication equation as a comparison, e.g., interpret <math>35 = 5 \times 7</math> 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.</p>	<b>NEW</b>	
<p><b>4.OA.2</b> 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. <i>(Footnote: See Glossary, Table 2.)</i></p>	<p><b>4.3.1</b> Use letters, boxes, or other symbols to represent any number in simple expressions, equations, or inequalities.</p> <p><b>4.3.6</b> Recognize and apply the relationships between addition and multiplication, between subtraction and division, and the inverse relationship between multiplication and division to solve problems.</p> <p><b>4.3.7</b> Relate problem situations to number sentences involving multiplication and division.</p>	<p>INCC interprets multiplication as a comparison and requires students to distinguish multiplicative comparisons from additive comparisons ( Glossary, Table 2)</p>

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<p><b>4.OA.3</b> 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.</p>	<p><b>4.2.11</b> Know and use strategies for estimating results of any whole number computation.</p> <p><b>4.3.1</b> Use letters, boxes, or other symbols to represent any number in simple expressions, equations, or inequalities.</p> <p><b>4.2.11</b> Know and use strategies for estimating results of any whole number computation.</p> <p><b>4.2.12</b> Use mental arithmetic to add or subtract numbers rounded to hundreds or thousands.</p>	<p>INCC explicitly requires multistep word problems using the four operations, including problems in which remainders must be interpreted.</p>
<p><b>Gain familiarity with factors and multiples.</b></p>		
<p><b>4.OA.4</b> 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.</p>	<p><b>NEW</b></p>	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Generalize and analyze patterns.</b>		
<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. 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.</p>	<p>4.3.4 Understand that an equation such as <math>y = 3x + 5</math> is a rule for finding a second number when a first number is given.</p> <hr/> <p>4.3.5 Continue number patterns using multiplication and division.</p>	<p>INCC requires students to generate number and shape patterns and informally explain the pattern of the rule.</p>

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Number and Operations in Base Ten</b>		
<b>Generalize place value understanding for multi-digit whole numbers.</b>		
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. <i>For example, recognize that <math>700 \div 70 = 10</math> by applying concepts of place value and division.</i>	<b>NEW</b>	
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.	4.1.1 Read and write whole numbers up to 1,000,000.  4.1.4 Order and compare whole numbers using symbols for "less than" ( $<$ ), "equal to" ( $=$ ), and "greater than" ( $>$ ).	This aligns partially with IAS 4.1.1 and 4.1.4. INCC includes expanded form and comparison of numbers less than or equal to 1,000,000.
4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.	4.1.3 Round whole numbers up to 10,00 to the nearest ten, hundred, and thousand.	This aligns partially with IAS 4.1.3. INCC includes rounding numbers less than or equal to 1,000,000 to any place.
<b>Use place value understanding and properties of operations to perform multi-digit arithmetic.</b>		
4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.	4.2.1 Understand and use standard algorithms for addition and subtraction.	This aligns well with IAS 4.2.1. Sufficient practice and support throughout the year are needed to help students meet this fluency.
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.	4.2.5 Use a standard algorithm to multiply numbers up to 100 by numbers up to 10, using relevant properties of the number system.	This aligns partially with IAS 4.2.5. The expectation increases from multiplying numbers up to 100 by numbers up to 10 to multiplying numbers up to 4 digits by 1-digit numbers, and also multiplying two 2-digit numbers.

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<p><b>4.NBT.6</b> 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.</p>	<p><b>4.2.6</b> Use a standard algorithm to divide numbers up to 100 by numbers up to 10 without remainders, using relevant properties of the number system.</p>	<p>This aligns partially with IAS 4.2.6. The expectation increases from dividing numbers up to 100 by numbers up to 10 without remainders to dividing up to 4-digit numbers by one-digit numbers with remainders.</p>
<p><b>Extend understanding of fraction equivalence and ordering.</b></p>		
<p><b>4.NF.1</b> Explain why a fraction <math>a/b</math> is equivalent to a fraction <math>(n \times a)/(n \times b)</math> 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.</p>	<p><b>NEW</b></p>	
<p><b>4.NF.2</b> 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 <math>1/2</math>. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions, e.g., by using a visual fraction model.</p>	<p><b>NEW</b></p>	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</b>		
<b>4.NF.3</b> Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ .		This aligns partially with IAS 4.1.5, 4.1.6, 4.1.7, 4.2.8. INCC requires addition and subtraction with mixed numbers, and solving word problems involving addition and subtraction of fractions.
<b>4.NF.3a</b> Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	<b>4.2.8</b> Add and subtract simple fractions with different denominators, using objects or pictures.	INCC calls attention to the understanding of addition and subtraction of fractions as joining and separation parts of the same whole.
<b>4.NF.3b</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: $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$ ; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$ ; $2\frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$ .	<b>NEW</b>	
<b>4.NF.3c</b> 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.	<b>4.1.5</b> Rename and rewrite whole numbers as fractions.	INCC requires the addition and subtraction of mixed numbers.
	<b>4.1.6</b> Name and write mixed numbers, using objects or pictures.	
	<b>4.1.7</b> Name and write mixed numbers as improper fractions, using objects or pictures.	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<p><b>4.NF.3d</b> 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.</p>	<p><b>NEW</b></p>	
<p><b>4.NF.4</b> Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p>	<p><b>NEW</b></p>	
<p><b>4.NF.4a</b> Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math>. <i>For example, use a visual fraction model to represent <math>5/4</math> as the product <math>5 \times (1/4)</math>, recording the conclusion by the equation <math>5/4 = 5 \times (1/4)</math>.</i></p>	<p><b>NEW</b></p>	
<p><b>4.NF.4b</b> Understand a multiple of <math>a/b</math> as a multiple of <math>1/b</math>, and use this understanding to multiply a fraction by a whole number. <i>For example, use a visual fraction model to express <math>3 \times (2/5)</math> as <math>6 \times (1/5)</math>, recognizing this product as <math>6/5</math>. (In general, <math>n \times (a/b) = (n \times a)/b</math>.)</i></p>	<p><b>NEW</b></p>	
<p><b>4.NF.4c</b> 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 <math>3/8</math> 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</i></p>	<p><b>NEW</b></p>	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Understand decimal notation for fractions, and compare decimal fractions.</b>		
<p><b>4.NF.5</b> 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 <math>\frac{3}{10}</math> as <math>\frac{30}{100}</math> and add <math>\frac{3}{10} + \frac{4}{100} = \frac{34}{100}</math>. (Footnote: Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.)</i></p>	<b>NEW</b>	
<p><b>4.NF.6</b> Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as <math>\frac{62}{100}</math>; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i></p>	<p><b>4.1.8</b> Write tenths and hundredths in decimal and fraction notations. Know that fraction and decimal equivalents for halves and fourths (e.g., <math>\frac{1}{2} = 0.5 = 0.50</math>, <math>\frac{7}{4} = 1 \frac{3}{4} = 1.75</math>).</p>	<p>This aligns well with IAS 4.1.8. INCC includes number representation on a number line.</p>
<p><b>4.NF.7</b> Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when two decimals refer to the same whole. Record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions, e.g., by using a visual model.</p>	<b>NEW</b>	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Measurement and Data</b>		
<b>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</b>		
<p><b>4.MD.1</b> 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>	<p><b>4.5.2</b> Subtract units of length that may require renaming of feet to inches or meters to centimeters.</p>	<p>This aligns partially with IAS 4.5.2. INCC requires recording measurements in a table and includes various measurements.</p>
<p><b>4.MD.2</b> 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.</p>	<p><b>4.5.2</b> Subtract units of length that may require renaming of feet to inches or meters to centimeters.</p> <p><b>4.5.9</b> Add time intervals involving hours and minutes.</p> <p><b>4.5.10</b> Determine the amount of change from a purchase.</p>	<p>This aligns partially with IAS 4.5.2, 4.5.9 and 4.5.10. INCC requires solving word problems involving various measurements.</p>

<p><b>4.MD.3</b> 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></p>	<p><b>4.5.3</b> Know and use formulas for finding the perimeters of rectangles and squares.</p>	<p>INCC focuses on real world contexts.</p>
	<p><b>4.5.4</b> Know and use formulas for finding the areas of rectangles and squares.</p>	
	<p><b>4.5.5</b> Estimate and calculate the area of rectangular shapes using appropriate units, such as square centimeter, square meter, square inch, or square yard.</p>	
	<p><b>4.5.6</b> Understand that rectangles with the same area can have different perimeters and that rectangles with the same perimeter can have different areas.</p>	
<p><b>Represent and interpret data.</b></p>		
<p><b>4.MD.4</b> Make a line plot to display a data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>). 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></p>	<p><b>4.3.8</b> Plot and label whole numbers on a number line up to 100. Estimate positions on the number line.</p>	<p>INCC requires solving data problems using addition and subtraction of data represented fractionally</p>
	<p><b>4.6.1</b> Represent data on a number line and tables, including frequency tables.</p>	
	<p><b>4.6.2</b> Interpret data graphs to answer questions about a situation.</p>	
<p><b>Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</b></p>		
<p><b>4.MD.5</b> Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.</p>	<p><b>NEW</b></p>	

<p><b>4.MD.5a</b> 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</p>	<p><b>NEW</b></p>	
<p><b>4.MD.5b</b> An angle that turns through <math>n</math> one-degree angles is said to have an angle measure of <math>n</math> degrees.</p>	<p><b>NEW</b></p>	
<p><b>4.MD.6</b> Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p>	<p><b>NEW</b></p>	
<p><b>4.MD.7</b> Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the</p>	<p><b>NEW</b></p>	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>Geometry</b>		
<b>Draw and indentify lines and angles, and classify shapes by properties of their lines and angles.</b>		
<p><b>4.G.1</b> Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.</p>	<p><b>4.4.1</b> Identify, describe, and draw rays, right angles, acute angles, obtuse angles, and straight angles using appropriate mathematical tools and technology.</p> <p><b>4.4.2</b> Identify, describe, and draw parallel, perpendicular, and oblique lines using appropriate mathematical tools and technology.</p>	<p>INCC includes line segments.</p>
<p><b>4.G.2</b> 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><b>NEW</b></p>	
<p><b>4.G.3</b> 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.</p>	<p><b>4.4.5</b> Identify and draw lines of symmetry.</p>	

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
<b>IAS Grade 4 Standards Not Matched by INCC</b>		
No match in INCC Grade 4.	<b>4.1.5</b> Rename and rewrite whole numbers as fractions.	INCC Grade 3 (3.NF.3c)
No match in INCC Grade 4.	<b>4.1.9</b> Round two-place decimals to tenths or to the nearest whole number.	INCC Grade 5 (5.NBT.4)
No match in INCC Grade 4.	<b>4.2.2</b> Represent as multiplication any situation involving repeated addition.	INCC Grade 3 (3.MD.7)
No match in INCC Grade 4.	<b>4.2.3</b> Represent as division any situation involving the sharing of objects or the number of groups of shared objects.	INCC Grade 3 (3.OA.2)
No match in INCC Grade 4.	<b>4.2.4</b> Demonstrate mastery of the multiplication tables for numbers between 1 and 10 and of the corresponding division facts.	INCC Grade 3 (3.OA.7)
No match in INCC Grade 4.	<b>4.2.7</b> Understand the special properties of 0 and 1 in multiplication and division.	INCC Grade 3 (3. OA.5) Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 4.	<b>4.2.9</b> Add and subtract decimals (to hundredths), using objects or pictures.	INCC Grade 5 (5.NBT.7) Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 4.	<b>4.2.10</b> Use a standard algorithm to add and subtract decimals (to hundredths).	INCC Grade 5 (5.NBT.7)
No match in INCC Grade 4.	<b>4.3.3</b> Understand that multiplication and division are performed before addition and subtraction in expressions without parentheses.	INCC Grade 3 (3.OA.8)

Grade 4 Indiana's Common Core Standards (INCC)	Grade 4 Indiana Academic Standards (IAS)	Comment
No match in INCC Grade 4.	4.4.3 Identify, describe, and draw parallelograms, rhombuses, and trapezoids, using appropriate mathematical tools and technology.	INCC Grade 3 (3.G.1) and INCC Grade 1 ( 1.G.2)
No match in INCC Grade 4.	4.4.4 Identify congruent quadrilaterals and give reasons for congruence using sides, angles, parallels, and perpendiculars.	INCC Grade 8 (8.G.2)
No match in INCC Grade 4.	4.4.6 Construct cubes and prisms and describe their attributes.	INCC Grade 1 (1.G.2) and INCC Grade 2 ( 2.G.1) Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 4.	4.5.1 Measure length to the nearest quarter-inch, eighth-inch, and millimeter.	INCC Grade 3 (3.MD.4)
No match in INCC Grade 4.	4.5.7 Find areas of shapes by dividing them into basic shapes such as rectangles.	INCC Grade 3 (3.MD.7d)
No match in INCC.	4.5.8 Use volume and capacity as different ways of measuring the space inside a shape.	Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 4.	4.6.3 Summarize and display the results of probability experiments in a clear and organized way.	These concepts are moved to Grade 6 at a more complex level.

## **Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis**

**This document can be used to assist educators in analyzing the commonalities and differences between Indiana's Common Core Standards (INCC) and the Indiana Academic Standards (IAS). In particular, for schools teaching INCC, this document can be used to help identify IAS that do not align or only partially align with INCC. Students must be given the opportunity to learn the IAS as they will be assessed on these standards through the 2013-14 school year.**

**The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.**

**At the end of this document, we have listed the IAS Grade 5 indicators that are not aligned to the Grade 5 INCC. These are presented in two ways: (1) IAS Grade 5 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 5 indicators that do not match any INCC.**

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Operations and Algebraic Thinking</b>		
<b>Write and interpret numerical expressions.</b>		
<p><b>5.OA.1</b> Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p>	<p><b>5.3.3</b> Use the distributive property in numerical equations and expressions.</p>	<p>INCC 5.OA.1 is not limited to the distributive property; IAS 5.3.3 includes the term "distributive property."</p>
<p><b>5.OA.2</b> Write simple expressions that record calculations with numbers, and interpret numerical expressions <b>without evaluating them</b>. <i>For example, express the calculation "add 8 and 7, then multiply by 2" as <math>2 \times (8 + 7)</math>. Recognize that <math>3 \times (18932 + 921)</math> is three times as large as <math>18932 + 921</math>, without having to calculate the indicated sum or product.</i></p>	<p><b>5.3.2</b> Write simple algebraic expressions in one or two variables and evaluate them by substitution. (Partial)</p> <p><b>5.3.3</b> Use the distributive property in numerical equations and expressions. (Partial)</p>	<p>INCC explicitly states to write simple expressions and interpret numerical expressions without evaluating them.</p>
<b>Analyze patterns and relationships.</b>		
<p><b>5.OA.3</b> 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.</p>	<p><b>5.3.5</b> Find ordered pairs (positive number only) that fit a linear equation, graph the ordered pairs, and draw the line they determine.</p>	<p>INCC requires generation of numerical patterns using two rules to form and graph ordered pairs, and requires informal explanation</p>

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Number and Operations in Base Ten</b>		
<b>Understand the place value system.</b>		
<p><b>5.NBT.1</b> 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.</p>	<p><b>5.1.3</b> Arrange in numerical order and compare whole numbers or decimals to two decimal places by using the symbols for less than (&lt;), equals (=), and greater than (&gt;). (Partial)</p>	<p>This aligns partially with IAS 5.1.3. INCC defines place value in terms of digit placement to the right (10 times as much) or to the left (1/10 as much).</p>
<p><b>5.NBT.2</b> 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.</p>	<p><b>NEW</b></p>	
<p><b>5.NBT.3</b> Read, write, and compare decimals to thousandths.</p>	<p><b>5.1.1</b> Convert between numbers in words and numbers in figures, for numbers up to millions and decimals to thousandths.</p> <p><b>5.1.3</b> Arrange in numerical order and compare whole numbers or decimals to two decimal places by using the symbols for less than (&lt;), equals (=), and greater than (&gt;).</p>	<p>This aligns partially with IAS 5.1.1 and 5.1.3. The expectation increases from decimals to hundredths to decimals to thousandths.</p>
<p><b>5.NBT.3a</b> Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., <math>347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)</math>.</p>	<p><b>5.1.1</b> Convert between numbers in words and numbers in figures, for numbers up to millions and decimals to thousandths.</p>	<p>INCC requires the use of base-ten numerals, number names and expanded form.</p>

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
5.NBT.3b Compare two decimals to thousandths based on meanings of the digits in each place, using $>$ , $=$ , and $<$ symbols to record the results of comparisons.	5.1.3 Arrange in numerical order and compare whole numbers or decimals to two decimal places by using the symbols for less than ( $<$ ), equals ( $=$ ), and greater than ( $>$ ).	INCC focuses on the comparison of two decimals to the thousandths based on meaning of the digits in each place.
5.NBT.4 Use place value understanding to round decimals to any place.	5.1.2 Round whole numbers and decimals to any place value.	INCC focuses on decimals only.
<b>Perform operations with multi-digit whole numbers and with decimals to hundredths.</b>		
5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.	5.2.1 Solve problems involving multiplication and division of any whole numbers.	This aligns well with IAS 5.2.1. Sufficient practice and support throughout the year are needed to help students meet this fluency.
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.	5.2.1 Solve problems involving multiplication and division of any whole numbers.	INCC 2011 requires using strategies based on place value and modeling of division calculations with whole numbers
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.	5.2.5 Add and subtract decimals and verify the reasonableness of the results.	INCC stresses the importance of using concrete models, drawings, and strategies based on place value to perform operations with decimals and requires explanation of reasoning. It includes multiplication and division of decimals to the hundredths.
	5.2.7 Use mental arithmetic to add or subtract simple decimals.	
	5.5.7 Add and subtract with money in decimal notation.	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Number and Operations- Fractions</b>		
<b>Use equivalent fractions as a strategy to add and subtract fractions.</b>		
<p><b>5.NF.1</b> 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.</p> <p><i>For example, <math>\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}</math>.</i></p> <p><i>(In general, <math>\frac{a}{b} + \frac{c}{d} = \frac{(ad+bc)}{bd}</math>.)</i></p>	<p><b>5.2.2</b> Add and subtract fractions (including mixed numbers) with different denominators.</p>	
<p><b>5.NF.2</b> 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 <math>\frac{2}{5} + \frac{1}{2} = \frac{3}{7}</math> by observing that <math>\frac{3}{7} &lt; \frac{1}{2}</math>.</i></p>	<p><b>5.2.2</b> Add and subtract fractions (including mixed numbers) with different denominators.</p>	<p>This aligns partially with IAS 5.2.2. INCC emphasizes solving word problems.</p>

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</b>		
<p><b>5.NF.3</b> Interpret a fraction as division of the numerator by the denominator (<math>\frac{a}{b} = a \div b</math>). 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 <math>\frac{3}{4}</math> as the result of dividing 3 by 4, noting that <math>\frac{3}{4}</math> multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size <math>\frac{3}{4}</math>. 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></p>	<p><b>5.1.5</b> Explain different interpretations of fractions: as parts of a whole, parts of a set, and division of whole numbers by whole numbers.</p>	<p>INCC interprets fractions as a division of numerator by denominator. Solving word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers is a requirement of this INCC.</p>
<p><b>5.NF.4</b> Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p>	<p><b>5.2.3</b> Use models to show an understanding of multiplication and division of fractions.</p> <p><b>5.2.4</b> Multiply and divide fractions to solve problems.</p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<p><b>5.NF.4a</b> Interpret the product <math>(\frac{a}{b}) \times q</math> as a parts of a partition of <math>q</math> into <math>b</math> equal parts; equivalently, as the result of a sequence of operations <math>a \times q \div b</math>. For example, use a visual fraction model to show <math>(\frac{2}{3}) \times 4 = \frac{8}{3}</math>, and create a story context for this equation. Do the same with <math>(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}</math>. (In general, <math>(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}</math>.)</p>	<p><b>NEW</b></p>	<p>Extension of IAS 5.2.3.</p>
<p><b>5.NF.4b</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>	<p><b>5.5.2</b> Solve problems involving perimeters and areas of rectangles, triangles, parallelograms, and trapezoids, using appropriate units.</p>	<p>This aligns partially with IAS 4.5.4 and 5.5.2. INCC emphasizes fractional side lengths.</p>
<p><b>5.NF.5</b> Interpret multiplication as scaling (resizing) by:</p>	<p><b>NEW</b></p>	
<p><b>5.NF.5a</b> 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.</p>	<p><b>NEW</b></p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<p><b>5.NF.5b</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 <math>a/b = (n \times a) / (n \times b)</math> to the effect of multiplying <math>a/b</math> by 1.</p>	<p><b>NEW</b></p>	
<p><b>5.NF.6</b> 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>	<p><b>5.2.4</b> Multiply and divide fractions to solve problems.</p>	<p>INCC requires involving fractions in real world problems, Visual fraction models and equations are stated as ways to represent the problem.</p>
<p><b>5.NF.7</b> Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (Footnote: Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.)</p>	<p><b>5.2.3</b> Use models to show an understanding of multiplication and division of fractions.</p>	<p>This aligns partially with IAS 5.2.3 and 5.2.4. INCC includes division of fractions by whole numbers and division of whole numbers by unit fractions which may be implied in IAS 5.2.4.</p>
	<p><b>5.2.4</b> Multiply and divide fractions to solve problems.</p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<p><b>5.NF.7a</b> Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. <i>For example, create a story context for <math>(\frac{1}{3}) \div 4</math> and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>(\frac{1}{3}) \div 4 = \frac{1}{12}</math> because <math>(\frac{1}{12}) \times 4 = \frac{1}{3}</math>.</i></p>	<p><b>5.2.3</b> Use models to show an understanding of multiplication and division of fractions.</p> <p><b>5.2.4</b> Multiply and divide fractions to solve problems.</p>	<p>INCC includes division of fractions by whole numbers and division of whole numbers by unit fractions which may be implied in IAS 5.2.4.</p>
<p><b>5.NF.7b</b> Interpret division of a whole number by a unit fraction, and compute such quotients. <i>For example, create a story context for <math>4 \div (\frac{1}{5})</math> and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>4 \div (\frac{1}{5}) = 20</math> because <math>20 \times (\frac{1}{5}) = 4</math>.</i></p>	<p><b>5.2.3</b> Use models to show an understanding of multiplication and division of fractions.</p> <p><b>5.2.4</b> Multiply and divide fractions to solve problems.</p>	<p>INCC includes division of fractions by whole numbers and division of whole numbers by unit fractions which may be implied in IAS 5.2.4.</p>

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<p><b>5.NF.7c</b> 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 <math>\frac{1}{2}</math> lb of chocolate equally? How many <math>\frac{1}{3}</math>-cup servings are in 2 cups of raisins?</i></p>	<p><b>5.2.3</b> Use models to show an understanding of multiplication and division of fractions.</p>	<p>INCC includes division of fractions by whole numbers and division of whole numbers by unit fractions which may be implied in IAS 5.2.4. Use of real-world problems is also an expectation of this standard.</p>
	<p><b>5.2.4</b> Multiply and divide fractions to solve problems.</p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Measurement and Data</b>		
<b>Convert like measurement units within a given measurement system.</b>		
<p><b>5.MD.1</b> 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.</p>	<p><b>5.5.5</b> Understand and use the smaller and larger units for measuring weight (ounce, gram, and ton) and their relationship to pounds and kilograms.</p>	<p>This aligns partially with IAS 5.5.5. INCC includes conversions with various measurements and to use those conversions to solve multi-step, real world problems.</p>
<b>Represent and interpret data.</b>		
<p><b>5.MD.2</b> Make a line plot to display a data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>). 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></p>	<p><b>NEW</b></p>	
<b>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</b>		
<p><b>5.MD.3</b> Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p>	<p><b>5.5.4</b> Find the surface area and volume of rectangular solids using appropriate units.</p>	<p>This aligns partially with IAS 5.5.4. INCC requires a more conceptual understanding of volume.</p>

<p><b>5.MD.3a</b> 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.</p>	<p><b>NEW</b></p>	<p>INCC requires a more conceptual understanding of volume.</p>
<p><b>5.MD.3b</b> A solid figure which can be packed without gaps or overlaps using <math>n</math> unit cubes is said to have a volume of <math>n</math> cubic units.</p>	<p><b>NEW</b></p>	<p>INCC requires a more conceptual understanding of volume.</p>
<p><b>5.MD.4</b> Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.</p>	<p><b>5.5.4</b> Find the surface area and volume of rectangular solids using appropriate units.</p>	<p>This aligns partially with IAS 5.5.4.</p>
<p><b>5.MD.5</b> Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p>	<p><b>NEW</b></p>	<p>Extension of IAS 5.5.4.</p>
<p><b>5.MD5a</b> 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 three-fold whole-number products as volumes, e.g., to represent the associative property of multiplication.</p>	<p><b>NEW</b></p>	<p>Extension of IAS 5.5.4.</p>
<p><b>5.MD.5b</b> Apply the formulas <math>V = l \times w \times h</math> and <math>V = b \times h</math> 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.</p>	<p><b>NEW</b></p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<p><b>5.MD.5c</b> 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>	<p><b>NEW</b></p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Geometry</b>		
<b>Graph points on the coordinate plane to solve real-world and mathematical problems.</b>		
<p><b>5.G.1</b> 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).</p>	<p><b>5.3.4</b> Identify and graph ordered pairs of positive numbers.</p>	<p>INCC includes definition and requires understanding of the coordinate plane</p>
<p><b>5.G.2</b> 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.</p>	<p><b>5.3.4</b> Identify and graph ordered pairs of positive numbers.</p>	<p>INCC requires interpretation of coordinate values of points in context</p>

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>Classify two-dimensional figures into categories based on their properties.</b>		
<p>5.G.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></p>	<p>5.4.2 Identify, describe, draw, and classify triangles as equilateral, isosceles, scalene, right, acute, obtuse, and equiangular.</p> <p>5.4.4 Identify, describe, draw, and classify polygons, such as pentagons and hexagons.</p>	<p>INCC 5.G.3 requires students to classify based on categories and subcategories and to understand the hierarchical nature of the classification.</p>
<p>5.G.4 Classify two-dimensional figures in a hierarchy based on properties.</p>	<p><b>NEW</b></p>	

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
<b>IAS Grade 5 Standards Not Matched by INCC</b>		
No match in INCC Grade 5.	5.1.6 Describe and identify prime and composite numbers.	INCC Grade 4 (4.OA.4)
No match in INCC Grade 5.	5.1.7 Identify on a number line the relative position of simple positive fractions, positive mixed numbers, and positive decimals.	INCC Grade 3 (3.NF.2)
INCC Mathematical Practice	5.2.6 Use estimation to decide whether answers are reasonable in addition, subtraction, multiplication, and division problems.	Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 5.	5.3.1 Use a variable to represent an unknown number.	INCC Grade 6 (6.EE.2)
No match in INCC Grade 5.	5.3.6 Understand that the length of a horizontal line segment on a coordinate plane equals the difference between the x-coordinates and that the length of a vertical line segment on a coordinate plane equals the difference between the y-coordinates.	INCC Grade 6 (6.G.3)
INCC Mathematical Practice	5.3.7 Use information taken from a graph or equation to answer questions about a problem situation.	
No match in INCC Grade 5.	5.4.1 Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, triangles, and circles by using appropriate tools (e.g., ruler, compass, protractor, appropriate technology, media tools).	INCC Grade 4 (4.MD.5 a&b, 4.MD.6, 4.MD.7)

Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
No match in INCC Grade 5.	<b>5.4.3</b> Identify congruent triangles and justify your decisions by referring to sides and angles.	INCC Grade 8
No match in INCC Grade 5.	<b>5.4.5</b> Identify and draw the radius and diameter of a circle and understand the relationship between the radius and diameter.	Although the terms "radius and "diameter" do not appear in INCC until high school, the concepts are necessary in Grade 7 when students find the area and circumference of circles using a formula.
No match in INCC Grade 5.	<b>5.4.6</b> Identify shapes that have reflectional and rotational symmetry.	Rotations, reflections, and translations are in 8th grade; rotational and reflectional symmetry in high school.
No match in INCC Grade 5.	<b>5.4.7</b> Understand that $90^\circ$ , $180^\circ$ , $270^\circ$ , and $360^\circ$ are associated with quarter, half, three-quarters, and full turns, respectively.	Rotations are in 8th grade; angle measurement in 4th grade.
No match in INCC Grade 5.	<b>5.4.8</b> Construct prisms and pyramids using appropriate materials.	Constructing right rectangular prism is in 1st grade. These skills are not part of INCC; however these skills will b useful for grade 7, when students find the surface area of prisms and pyramids. Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 5.	<b>5.4.9</b> Given a picture of a three-dimensional object, build the object with blocks.	Not part of INCC except for Grades K & 1. Assessed in the classroom, not on ISTEP+.
No match in INCC Grade 5.	<b>5.5.1</b> Understand and apply the formulas for the area of a triangle, parallelogram, and trapezoid.	INCC Grade 6 (6.G.1)

No match in INCC Grade 5.	<b>5.5.2</b> Solve problems involving perimeters and areas of rectangles, triangles, parallelograms, and trapezoids, using appropriate units.	Perimeter of polygons in Grade 3 (3.MD.8); Area & perimeter of rectangles in Grade 4 (4.MD.3); Other area in Grade 6 ( 6.G.1)
<b>Grade 5 Indiana's Common Core Standards (INCC)</b>	<b>Grade 5 Indiana Academic Standards (IAS)</b>	<b>Comment</b>
No match in INCC Grade 5.	<b>5.5.3</b> Use formulas for the areas of rectangles and triangles to find the area of complex shapes by dividing them into basic shapes.	INCC Grade 6 (6.G.1)
No match in INCC Grade 5.	<b>5.5.5</b> Understand and use the smaller and larger units for measuring weight (ounce, gram, and ton) and their relationship to pounds and kilograms.	INCC Grade 4 ( 4.MD.1)
No match in INCC.	<b>5.5.6</b> Compare temperatures in Celsius and Fahrenheit, knowing that the freezing point of water is 0°C and 32°F and that the boiling point is 100°C and 212°F.	Assessed in the classroom, not on ISTEP+.
INCC Mathematical Practice	<b>5.6.1</b> Explain which types of displays are appropriate for various sets of data.	
No match in INCC Grade 5.	<b>5.6.2</b> Find the mean, median, mode, and range of a set of data and describe what each does and does not tell about the data set.	INCC Grade 6 (6.SP.5)

No match in INCC Grade 5.	<b>5.6.3</b> Understand that probability can take any value between 0 and 1, events that are not going to occur have probability 0, events certain to occur have probability 1, and more likely events have a higher probability than less likely events.	INCC Grade 7 (7.SP.5)
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Grade 5 Indiana's Common Core Standards (INCC)	Grade 5 Indiana Academic Standards (IAS)	Comment
No match in INCC Grade 5.	5.6.4 Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4).	INCC Grade 7 (7.SP.6)

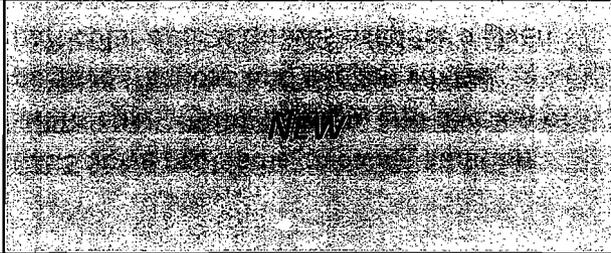
## **Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis**

**This document can be used to assist educators in analyzing the commonalities and differences between Indiana's Common Core Standards (INCC) and the Indiana Academic Standards (IAS). In particular, for schools teaching INCC, this document can be used to help identify IAS that do not align or only partially align with INCC. Students must be given the opportunity to learn the IAS as they will be assessed on these standards through the 2013-14 school year.**

**The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.**

**At the end of this document, we have listed the IAS Grade 6 indicators that are not aligned to the Grade 6 INCC. These are presented in two ways: (1) IAS Grade 6 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 6 indicators that do not match any INCC.**

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>Ratios and Proportional Relationships</b>		
<b>Understand ratio concepts and use ratio reasoning to solve problems.</b>		
<p><b>6.RP.1</b> 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></p>	<p><b>6.2.6</b> Interpret and use ratios to show the relative sizes of two quantities. Use the notations: <math>a/b</math>, <math>a</math> to <math>b</math>, <math>a:b</math>. <i>Example: A car moving at a constant speed travels 130 miles in 2 hours. Write the ratio of distance to time and use it to find how far the car will travel in 5 hours.</i></p>	<p>This aligns will with IAS 6.2.6.</p>
<p><b>6.RP.2</b> Understand the concept of a unit rate <math>a/b</math> associated with a ratio <math>a:b</math> with <math>b \neq 0</math>, 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 <math>3/4</math> cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”</i></p>	<p><b>6.2.6</b> Interpret and use ratios to show the relative sizes of two quantities. Use the notations: <math>a/b</math>, <math>a</math> to <math>b</math>, <math>a:b</math>. <i>Example: A car moving at a constant speed travels 130 miles in 2 hours. Write the ratio of distance to time and use it to find how far the car will travel in 5 hours.</i></p>	<p>This aligns partially with IAS 6.2.6. INCC includes unit rates.</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<p><b>6.RP.3</b> 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.</p>	<p><b>6.1.6</b> Use models to represent ratios. <i>Example: Divide 27 pencils to represent the ratio 4:5.</i></p>	<p>This aligns partially with IAS 6.1.4 - 6.1.6, 6.2.6 - 6.2.8, and 6.5.2. INCC includes unit rates, the use of tables and the coordinate plane with ratios, solving problems involving finding the whole given a part and the percent, using ratio reasoning to do measurement conversions, and manipulating and transforming units.</p>
<p><b>6.RP.3a</b> 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.</p>	<p><b>6.2.7</b> Understand proportions and use them to solve problems.</p>	
<p><b>6.RP.3b</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></p>		
<p><b>6.RP.3c</b> 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.</p>	<p><b>6.2.8</b> Calculate given percentages of quantities and solve problems involving discounts at sales, interest earned, and tips.</p>	
	<p><b>6.1.4</b> Convert between any two representations of numbers (fractions, decimals, and percents) without the use of a calculator</p>	
<p><b>6.RP.3d</b> Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.</p>	<p><b>6.5.2</b> Understand and use larger units for measuring length by comparing miles to yards and kilometers to meters.</p>	

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>The Number System</b>		
<b>Apply and extend previous understandings of multiplication and division to divide fractions by fractions.</b>		
<p><b>6.NS.1</b> 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 text for <math>(2/3) \div (3/4)</math> and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that <math>(2/3) \div (3/4) = 8/9</math> because <math>3/4</math> of <math>8/9</math> is <math>2/3</math>. (In general, <math>(a/b) \div (c/d) = ad/bc</math>.) How much chocolate will each person get if 3 people share <math>1/2</math> lb of chocolate equally? How many <math>3/4</math>-cup servings are in <math>2/3</math> of a cup of yogurt? How wide is a rectangular strip of land with length <math>3/4</math> mi and area <math>1/2</math> square mi?</i></p>	<p><b>6.2.4</b> Explain how to multiply and divide positive fractions and perform the calculations.</p> <p><b>6.2.5</b> Solve problems involving addition, subtraction, multiplication, and division of positive fractions and explain why a particular operation was used for a given situation.</p>	<p>This aligns well with IAS 6.2.4 and 6.2.5.</p>
<b>Compute fluently with multi-digit numbers and find common factors and multiples.</b>		
<p><b>6.NS.2</b> Fluently divide multi-digit numbers using the standard algorithm.</p>	<b>NEW</b>	<p>This standard is new to 6th grade. It aligns well with IAS 5.2.1. Sufficient practice and support throughout the year are needed to help students meet this fluency.</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>6.NS.3</b> Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	<b>6.2.3</b> Multiply and divide decimals. <i>Example: <math>3.265 \times 0.96 = ?</math>, <math>56.79/2.4 = ?</math>.</i>	This aligns will with IAS 5.2.5 and 6.2.3. Sufficient practice and support throughout the year are needed to help students meet this fluency.
<b>6.NS.4</b> 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 <math>36 + 8</math> as <math>4(9 + 2)</math>.</i>	<b>6.1.7</b> Find the least common multiple and the greatest common factor of whole numbers. Use them to solve problems with fractions (e.g., to find a common denominator to add two fractions or to find the reduced form for a fraction).	INCC 6.NS.4 requires students to use the distributive property to express numbers with a common factor as a multiple of a sum of two numbers with no common factor.
<b>Apply and extend previous understandings of numbers to the system of rational numbers.</b>		
<b>6.NS.5</b> 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.	<b>6.1.1</b> Understand and apply the basic concept of negative numbers (e.g., on a number line, in counting, in temperature, in “owing”). <i>Example: The temperature this morning was <math>-6^{\circ}</math> and now it is <math>3^{\circ}</math>. How much has the temperature risen? Explain your answer.</i> (Partial)	INCC 6.NS.5 calls attention to the meaning of 0 in each real world context used to illustrate the concept of positive and negative quantities.
<b>6.NS.6</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.	<b>6.3.7</b> Identify and graph ordered pairs in the four quadrants of the coordinate plane. <i>Example: Plot the points <math>(3, -1)</math>, <math>(-6, 2)</math> and <math>(9, -3)</math>. What do you notice?</i>	

<b>Grade 6</b> <b>Indiana's Common Core Standards (INCC)</b>	<b>Grade 6</b> <b>Indiana Academic Standards (IAS)</b>	<b>Comment</b>
<b>6.NS.6a</b> 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>6.1.2</b> Interpret the absolute value of a number as the distance from zero on a number line and find the absolute value of real numbers. <i>Example: Use a number line to explain the absolute values of -3 and of 7.</i>	INCC 6.NS.6a makes specific mention of 0 being its own opposite.
<b>6.NS.6b</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.	<b>6.3.7</b> Identify and graph ordered pairs in the four quadrants of the coordinate plane. <i>Example: Plot the points (3, -1), (-6, 2) and (9, -3). What do you notice?</i>	INCC 6.NS.6b discusses that ordered pairs that differ only by signs are reflected across one or both axes.
<b>6.NS.6c</b> 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.	<b>6.3.7</b> Identify and graph ordered pairs in the four quadrants of the coordinate plane. <i>Example: Plot the points (3, -1), (-6, 2) and (9, -3). What do you notice?</i>	
<b>6.NS.7</b> Understand ordering and absolute value of rational numbers.		
<b>6.NS.7a</b> Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example, interpret <math>-3 &gt; -7</math> as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i>	<b>6.1.3</b> Compare and represent on a number line positive and negative integers, fractions, decimals (to hundredths), and mixed numbers. <i>Example: Find the positions on a number line of 3.56, -2.5, <math>15/6</math>, and -4.</i> (Partial)	INCC 6.NS.7a requires students to relate statements of inequality to the positions of integers on a number line.

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<p><b>6.NS.7b</b> Write, interpret, and explain statements of order for rational numbers in real-world contexts. <i>For example, write <math>-3\text{ }^{\circ}\text{C} &gt; -7\text{ }^{\circ}\text{C}</math> to express the fact that <math>-3\text{ }^{\circ}\text{C}</math> is warmer than <math>-7\text{ }^{\circ}\text{C}</math>.</i></p>	<p><b>6.1.3</b> Compare and represent on a number line positive and negative integers, fractions, decimals (to hundredths), and mixed numbers</p>	<p>INCC 6.NS.7b requires students to write, interpret, and explain statements of order in real-world contexts</p>
<p><b>6.NS.7c</b> 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 <math>-30</math> dollars, write <math> -30  = 30</math> to describe the size of the debt in dollars.</i></p>	<p><b>6.1.2</b> Interpret the absolute value of a number as the distance from zero on a number line and find the absolute value of real numbers.</p>	<p>INCC 6.NS.7c requires the interpretation of absolute value in real-world situations.</p>
<p><b>6.NS.7d</b> Distinguish comparisons of absolute value from statements about order. <i>For example, recognize that an account balance less than <math>-30</math> dollars represents a debt greater than 30 dollars.</i></p>	<p style="text-align: center;"><i>NEW</i></p>	<p style="text-align: center;"><i>NEW</i></p>
<p><b>6.NS.8</b> 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><b>6.3.7</b> Identify and graph ordered pairs in the four quadrants of the coordinate plane.</p>	<p>This aligns partially with IAS 6.3.7 and 6.3.8. INCC includes includes finding the distance between points.</p>
	<p><b>6.3.8</b> Solve problems involving linear functions with integer* values. Write the equation and graph the resulting ordered pairs of integers on a grid.</p>	

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>Expressions and Equations</b>		
<b>Apply and extend previous understandings of arithmetic to algebraic expressions.</b>		
<p><b>6.EE.1</b> Write and evaluate numerical expressions involving whole-number exponents.</p>	<p><b>6.3.3</b> Interpret and evaluate expressions that use grouping symbols such as parentheses.</p> <p><b>6.3.4</b> Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations.</p> <p><b>6.3.6</b> Apply the correct order of operations and the properties of real numbers (e.g., identity, inverse, commutative, associative, and distributive properties) to evaluate numerical expressions. Justify each step in the process.</p>	<p>This aligns partially with IAS 6.3.3, 6.3.4, and 6.3.6. INCC includes expressions with exponents.</p>
<p><b>6.EE.2</b> Write, read, and evaluate expressions in which letters stand for numbers.</p>	<p><b>6.3.3</b> Interpret and evaluate expressions that use grouping symbols such as parentheses.</p> <p><b>6.3.4</b> Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations.</p>	<p>The skills required by IAS 6.3.3, and 6.3.4 are not specifically mentioned in INCC 6.EE.3abc; however students must master these skills in order to master the requirements of INCC 6.EE.3abc.</p>
<p><b>6.EE.2a</b> Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation "Subtract y from 5" as <math>5 - y</math>.</i></p>		

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<p><b>6.EE.2b</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 <math>2(8 + 7)</math> as a product of two factors; view <math>(8 + 7)</math> as both a single entity and a sum of two terms.</i></p>		
<p><b>6.EE.2c</b> 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 <math>V = s^3</math> and <math>A = 6s^2</math> to find the volume and surface area of a cube with sides of length <math>s = 1/2</math>.</i></p>	<p><b>6.3.2</b> Write and use formulas with up to three variables to solve problems.</p> <p><b>6.3.6</b> Apply the correct order of operations and the properties of real numbers (e.g., identity, inverse, commutative, associative, and distributive properties) to evaluate numerical expressions. Justify each step in the process.</p>	<p>This aligns partially with IAS 6.3.2 and 6.3.6. INCC includes whole number exponents.</p>
<p><b>6.EE.3</b> Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression <math>3(2 + x)</math> to produce the equivalent expression <math>6 + 3x</math>; apply the distributive property to the expression <math>24x + 18y</math> to produce the equivalent expression <math>6(4x + 3y)</math>; apply properties of operations to <math>y + y + y</math> to produce the equivalent expression <math>3y</math>.</i></p>	<p><b>6.3.6</b> Apply the correct order of operations and the properties of real numbers (e.g., identity, inverse, commutative*, associative*, and distributive* properties) to evaluate numerical expressions. Justify each step in the process.</p>	<p>This aligns partially with IAS 6.3.6. INCC includes algebraic expressions.</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<p><b>6.EE.4</b> 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 <math>y + y + y</math> and <math>3y</math> are equivalent because they name the same number regardless of which number <math>y</math> stands for.</p>	<p><b>NEW</b></p>	<p>This is new and it connects well with 6.EE.3.</p>
<p><b>Reason about and solve one-variable equations and inequalities.</b></p>		
<p><b>6.EE.5</b> 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><b>6.3.1</b> Write and solve one-step linear equations and inequalities in one variable and check the answers.</p>	<p>INCC 6.EE.5 requires students to interpret linear equations and inequalities as a process to answer a question.</p>
<p><b>6.EE.6</b> 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.</p>	<p><b>6.3.1</b> Write and solve one-step linear equations and inequalities in one variable and check the answers. <b>6.3.5</b> Use variables in expressions describing geometric quantities.</p>	<p>This aligns well with IAS 6.3.1, 6.3.5, 5.3.1, and 5.3.2.</p>
<p><b>6.EE.7</b> Solve real-world and mathematical problems by writing and solving equations of the form <math>x + p = q</math> and <math>px = q</math> for cases in which <math>p</math>, <math>q</math> and <math>x</math> are all nonnegative rational numbers.</p>	<p><b>6.3.2</b> Write and use formulas with up to three variables to solve problems.</p>	<p>INCC 6.EE.7 specifically requires students to write and solve equations of the forms <math>x + p = q</math> and <math>px = q</math>.</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<p><b>6.EE.8</b> Write an inequality of the form <math>x &gt; c</math> or <math>x &lt; c</math> to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form <math>x &gt; c</math> or <math>x &lt; c</math> have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p>	<p><b>NEW</b></p>	
<p><b>Represent and analyze quantitative relationships between dependent and independent variables.</b></p>		
<p><b>6.EE.9</b> 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 <math>d = 65t</math> to represent the relationship between distance and time.</i></p>	<p><b>6.3.8</b> Solve problems involving linear functions with integer values. Write the equation and graph the resulting ordered pairs of integers on a grid.</p> <hr/> <p><b>6.3.9</b> Investigate how a change in one variable relates to a change in a second variable.</p>	<p>INCC 6.EE.9 requires students to conceptualize the terms "dependent and independent variables."</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>Geometry</b>		
<b>Solve real-world and mathematical problems involving area, surface area, and volume.</b>		
<p><b>6.G.1</b> Find 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>	<b>NEW</b>	
<p><b>6.G.2</b> 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 <math>V = lwh</math> and <math>V = bh</math> to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.</p>	<p><b>6.5.8</b> Use strategies to find the surface area and volume of right prisms and cylinders using appropriate units.</p>	<p>INCC 6.G.2 is limited to finding the volume of right rectangular prisms with fractional side lengths.</p>
	<p><b>6.3.5</b> Use variables in expressions describing geometric quantities.</p>	
<p><b>6.G.3</b> 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>	<b>NEW</b>	
<p><b>6.G.4</b> 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><b>6.5.7</b> Construct a cube and rectangular box from two-dimensional patterns and use these patterns to compute the surface area of these objects.</p>	<p>INCC 6.G.4 moves beyond cubes and rectangular boxes to require students to represent and find the surface area of three dimensional figures using nets that include triangles.</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>Statistics and Probability</b>		
<b>Develop understanding of statistical variability</b>		
<p><b>6.SP.1</b> 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></p>	<i>NEW</i>	
<p><b>6.SP.2</b> 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.</p>	<p><b>6.6.3</b> Compare the mean, median, and mode for a set of data and explain which measure is most appropriate in a given context</p>	<p>INCC 6.SP.2 requires students describe the distribution of a data set by its center, spread, and overall shape. IAS 6.6.3 is limited to mean, median, and mode.</p>
<p><b>6.SP.3</b> 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.</p>	<p><b>6.6.3</b> Compare the mean, median, and mode for a set of data and explain which measure is most appropriate in a given context.</p>	<p>INCC 6.SP.3 requires students to distinguish between the measure of center of a data set and the measure of variation of its values.</p>
<b>Summarize and describe distributions.</b>		
<p><b>6.SP.4</b> Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</p>	<p><b>6.6.2</b> Make frequency tables for numerical data, grouping the data in different ways to investigate how different groupings describe the data. Understand and find relative and cumulative frequency for a data set. Use histograms of the data and of the relative frequency distribution, and a broken line graph for cumulative frequency, to interpret the data.</p>	<p>INCC 6.SP.4 includes dot plots and box plots.</p>

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
6.SP.5 Summarize numerical data sets in relation to their context, such as by:		
6.SP.5a Reporting the number of observations.	6.6.2 Make frequency tables for numerical data, grouping the data in different ways to investigate how different groupings describe the data. Understand and find relative and cumulative frequency for a data set. Use histograms of the data and of the relative frequency distribution, and a broken line graph for cumulative frequency, to interpret the data.	
6.SP.5b Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	NEW	
6.SP.5c 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 was gathered.	6.6.3 Compare the mean, median, and mode for a set of data and explain which measure is most appropriate in a given context.	INCC 6.SP.5c requires students to give quantitative measures of variability and to describe patterns in the data distribution and deviations from the pattern.
6.SP.5d Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.	6.6.3 Compare the mean, median, and mode for a set of data and explain which measure is most appropriate in a given context.	

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
<b>IAS Grade 6 Standards Not Matched by INCC</b>		
No match in INCC Grade 6.	<b>6.1.5</b> Recognize decimal equivalents for commonly used fractions without the use of a calculator.	INCC Grade 4 (4.NF.6) requires students to use decimal notation for fractions with denominators 10 or 100.
No match in INCC Grade 6.	<b>6.2.1</b> Add and subtract positive and negative integers.	INCC Grade 7 (7.NS.1)
No match in INCC Grade 6.	<b>6.2.2</b> Multiply and divide positive and negative integers.	INCC Grade 7 (7.NS.2a)
INCC Mathematical Practices	<b>6.2.9</b> Use estimation to decide whether answers are reasonable in decimal problems.	Assessed in the classroom, not assessed on ISTEP+.
INCC Mathematical Practices	<b>6.2.10</b> Use mental arithmetic to add or subtract simple fractions and decimals.	Assessed in the classroom, not assessed on ISTEP+.
No match in INCC Grade 6.	<b>6.4.1</b> Identify and draw vertical, adjacent, complementary, and supplementary angles and describe these angle relationships.	INCC Grade 7 (7.G.5)
No match in INCC Grade 6.	<b>6.4.2</b> Use the properties of complementary, supplementary, and vertical angles to solve problems involving an unknown angle. Justify solutions.	INCC Grade 7 (7.G.5)
No match in INCC Grade 6.	<b>6.4.3</b> Draw quadrilaterals and triangles from given information about them.	INCC Grade 7 (7.G.2)
No match in INCC Grade 6.	<b>6.4.4</b> Understand that the sum of the interior angles of any triangle is $180^\circ$ and that the sum of the interior angles of any quadrilateral is $360^\circ$ . Use this information to solve problems.	INCC Grade 8 (8.G.5)
No match in INCC Grade 6.	<b>6.4.5</b> Identify and draw two-dimensional shapes that are similar.	INCC Grade 8 (8.G.5)

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
No match in INCC Grade 6.	<b>6.4.6</b> Draw the translation (slide) and reflection (flip) of shapes.	INCC Grade 8 (8.G.2)
No match in INCC Grade 6.	<b>6.4.7</b> Visualize and draw two-dimensional views of three-dimensional objects made from rectangular solids.	INCC Grade 7 (7.G.2)
No match in INCC.	<b>6.5.1</b> Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, temperature, and the size of angles.	
No match in INCC Grade 6.	<b>6.5.3</b> Understand and use larger units for measuring area by comparing acres and square miles to square yards and square kilometers to square meters.	Assessed in the classroom, not assessed on ISTEP+.
No match in INCC Grade 6.	<b>6.5.4</b> Understand the concept of the constant $\pi$ as the ratio of the circumference to the diameter of a circle. Develop and use the formulas for the circumference and area of a circle.	INCC Grade 7 (7.G.4)
No match in INCC Grade 6.	<b>6.5.5</b> Know common estimates of $\pi$ (3.14, 22/7) and use these values to estimate and calculate the circumference and the area of circles. Compare with actual measurements.	INCC Grade 7 (7.G.4)
No match in INCC Grade 6.	<b>6.5.6</b> Understand the concept of significant figures and round answers to an appropriate number of significant figures.	Assessed in the classroom, not assessed on ISTEP+. INCC Grade 7 (7.G.4)
No match in INCC.	<b>6.5.9</b> Use a formula to convert temperatures between Celsius and Fahrenheit.	

Grade 6 Indiana's Common Core Standards (INCC)	Grade 6 Indiana Academic Standards (IAS)	Comment
No match in INCC.	<b>6.5.10</b> Add, subtract, multiply, and divide with money in decimal notation.	
No match in INCC Grade 6.	<b>6.6.1</b> Organize and display single-variable data in appropriate graphs and stem-and-leaf plots, and explain which types of graphs are appropriate for various data sets.	Stem-and-leaf plots are not mentioned in INCC.
No match in INCC Grade 6.	<b>6.6.4</b> Show all possible outcomes for compound events in an organized way and find the theoretical probability of each outcome.	INCC Grade 7 (7.SP.8)
No match in INCC Grade 6.	<b>6.6.5</b> Use data to estimate the probability of future events.	INCC Grade 7 (7.SP.6,7)
No match in INCC Grade 6.	<b>6.6.6</b> Understand and represent probabilities as ratios, measures of relative frequency, decimals between 0 and 1, and percentages between 0 and 100 and verify that the probabilities computed are reasonable.	INCC Grade 7 (7.SP.5)

**Mathematics Indiana's Common Core Standards and Indiana Academic Standards Analysis**

**This document can be used to assist educators in analyzing the commonalities and differences between Indiana's Common Core Standards (INCC) and the Indiana Academic Standards (IAS). In particular, for schools teaching INCC, this document can be used to help identify IAS that do not align or only partially align with INCC. Students must be given the opportunity to learn the IAS as they will be assessed on these standards through the 2013-14 school year.**

**The first column states INCC. The second column states the IAS that partially align to INCC. The third column provides notes, usually highlighting differences between the standards. Please note that in most cases there are not complete matches between the two sets of standards, and it should not be assumed that either the content or skills found in one set of standards will match completely with those of the other set.**

**At the end of this document, we have listed the IAS Grade 7 indicators that are not aligned to the Grade 7 INCC. These are presented in two ways: (1) IAS Grade 7 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 7 indicators that do not match any INCC.**

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>Ratios and Proportional Relationships</b>		
<b>Analyze proportional relationships and use them to solve real-world and mathematical problems.</b>		
<p><b>7.RP.1</b> Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. <i>For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction (1/2)/(1/4) miles per hour, equivalently 2 miles per hour.</i></p>	<b>NEW</b>	
<p><b>7.RP.2</b> Recognize and represent proportional relationships between quantities.</p>		<p>7.RP.2a,b,c,&amp;d aligns partially with IAS 6.2.7, 6.3.8, 7.3.6, 7.3.7, 7.3.9 and 7.3.10. INCC focuses on proportional relationships.</p>
<p><b>7.RP.2a</b> 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.</p>	<p><b>7.3.9</b> Identify functions as linear or nonlinear and examine their characteristics in tables, graphs, and equations.</p>	<p>INCC 7.RP.2abcd are specifically limited to those linear relationships that are proportional.</p>
<p><b>7.RP.2b</b> Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p>	<p><b>7.3.10</b> Identify and describe situations with constant or varying rates of change and know that a constant rate of change describes a linear function.</p>	<p>INCC 7.RP.2abcd are specifically limited to those linear relationships that are proportional. INCC 7.RP.2b introduces the constant of proportionality (unit rate).</p>
<p><b>7.RP.2c</b> Represent proportional relationships by equations. <i>For example, if total cost <math>t</math> is proportional to the number <math>n</math> of items purchased at a constant price <math>p</math>, the relationship between the total cost and the number of items can be expressed as <math>t = pn</math>.</i></p>	<b>NEW</b>	

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<p><b>7.RP.2d</b> Explain what a point <math>(x, y)</math> on the graph of a proportional relationship means in terms of the situation, with special attention to the points <math>(0, 0)</math> and <math>(1, r)</math> where <math>r</math> is the unit rate.</p>	<p><b>NEW</b></p>	
<p><b>7.RP.3</b> Use proportional relationships to solve multistep ratio and percent problems. <i>Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</i></p>	<p><b>7.2.2</b> Calculate the percentage increase and decrease of a quantity.</p>	<p>This aligns partially with IAS 7.2.2, 7.2.3 and 8.2.2.</p>
	<p><b>7.2.3</b> Solve problems that involve discounts, markups, and commissions.</p>	

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>The Number System</b>		
<b>Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.</b>		
<p><b>7.NS.1</b> 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>	<p><b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.</p>	<p>INCC 7.NS.1 requires students to represent additional and subtraction on a horizontal or vertical number line. INCC 7.NS.1 is limited to addition and subtraction.</p>
<p><b>7.NS.1a</b> 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.</p>	<p><b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.</p>	<p>INCC 7.NS.1a requires students to describe situations where opposites added together make 0.</p>
<p><b>7.NS.1b</b> Understand <math>p + q</math> as the number located a distance <math> q </math> from <math>p</math>, in the positive or negative direction depending on whether <math>q</math> 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.</p>	<p><b>NEW</b></p>	
<p><b>7.NS.1c</b> Understand subtraction of rational numbers as adding the additive inverse, <math>p - q = p + (-q)</math>. 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.</p>	<p><b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.</p>	<p>INCC 7.NS.1c is limited to subtraction as addition of the additive inverse.</p>
<p><b>7.NS.1d</b> Apply properties of operations as strategies to add and subtract rational numbers.</p>	<p><b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.</p>	<p>INCC 7.NS.1d requires the application of the properties of operations.</p>

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>7.NS.2</b> Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	<b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.	7.NS.2 a,b,c & d partially with IAS 7.1.7, 7.2.1, 8.1.2 and 6.1.4. Sufficient practice and support throughout the year are needed to help students meet the fluency of rational number arithmetic.
<b>7.NS.2a</b> 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.	<b>NEW</b>	
<b>7.NS.2b</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.	<b>NEW</b>	
<b>7.NS.2c</b> Apply properties of operations as strategies to multiply and divide rational numbers.	<b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.	INCC 7.NS.2c requires the application of the properties of operations.
<b>7.NS.2d</b> 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.	<b>7.1.7</b> Convert terminating decimals into reduced fractions. Example: Write 0.95 as a fraction.	INCC 7.NS.2d is partially aligned to IAS 7.1.7.
<b>7.NS.3</b> Solve real-world and mathematical problems involving the four operations with rational numbers.	<b>7.2.1</b> Solve addition, subtraction, multiplication, and division problems that use integers, fractions, and decimals, and combinations of the four operations.	INCC 7.NS.3 requires the application of the properties of operations.

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>Expressions and Equations</b>		
<b>Use properties of operations to generate equivalent expressions.</b>		
<p><b>7.EE.1</b> Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients</p>	<p><b>7.3.3</b> Use correct algebraic terminology, such as variable, equation, term, coefficient, inequality, expression, and constant.</p> <p><b>7.3.4</b> Evaluate numerical expressions and simplify algebraic expressions by applying the correct order of operations and the properties of rational numbers (e.g., identity, inverse, commutative, associative, distributive properties). Justify each step in the process.</p>	<p>This aligns partially with IAS 7.3.4. INCC includes factoring and rational coefficients.</p>
<p><b>7.EE.2</b> Understand that rewriting an expression in different forms in a <i>problem context can shed light on the problem and how the quantities in it are related. For example, <math>a + 0.05a = 1.05a</math> means that "increase by 5%" is the same as "multiply by 1.05."</i></p>	<p><b>NEW</b></p>	<p>This is new and it connects well with the EE cluster.</p>

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<p><b>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</b></p>		
<p><b>7.EE.3</b> Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. <i>For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 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 3/4 inches long in the center of a door that is 27 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.</i></p>		<p>This aligns partially with Indiana's 7th Grade Standards.</p>
<p><b>7.EE.4</b> 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>	<p><b>7.3.1</b> Use variables and appropriate operations to write an expression, a formula, an equation, or an inequality that represents a verbal description. <i>Example: Write in symbols the inequality: 5 less than twice the number is greater than 42.</i></p>	<p>INCC 7.EE.4 a&amp;b aligns well with IAS 7.3.1 and 7.3.2. Sufficient practice and support throughout the year are needed to help students meet the fluency of solving one-variable equations of the form <math>px + q = r</math> and <math>p(x + q) = r</math>.</p>

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<p><b>7.EE.4a</b> Solve word problems leading to equations of the form <math>px + q = r</math> and <math>p(x + q) = r</math>, where <math>p</math>, <math>q</math>, and <math>r</math> 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. <i>For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i></p>	<p><b>7.3.2</b> Write and solve two-step linear equations and inequalities in one variable and check the answers. <i>Example: Solve the equation <math>4x - 7 = 12</math> and check your answer in the original equation.</i></p>	<p>INCC 7.EE.4a requires students to compare an algebraic solution to an arithmetic solution and to identify the sequence of operations used in each approach.</p>
<p><b>7.EE.4b</b> Solve word problems leading to inequalities of the form <math>px + q &gt; r</math> or <math>px + q &lt; r</math>, where <math>p</math>, <math>q</math>, and <math>r</math> are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. <i>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.</i></p>	<p><b>7.3.2</b> Write and solve two-step linear equations and inequalities in one variable and check the answers. <i>Example: Solve the equation <math>4x - 7 = 12</math> and check your answer in the original equation.</i></p>	<p>INCC 7.EE.4b requires students to graph the solution set of the inequality and to interpret in the context of the problem.</p>

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>Geometry</b>		
<b>Draw, construct, and describe geometrical figures and describe the relationships between them.</b>		
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.	7.5.3 Read and create drawings made to scale, construct scale models, and solve problems related to scale.	INCC 7.G.1 requires reproducing a scale drawing at a different scale.
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.	<b>NEW</b>	
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.	<b>NEW</b>	
<b>Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</b>		
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.	<b>NEW</b>	
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.	<b>NEW</b>	

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<p><b>7.G.6</b> Solve real-world and mathematical problems involving perimeter, area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>	<p><b>7.5.4</b> Use formulas for finding the perimeter and area of basic two-dimensional shapes and the surface area and volume of basic three-dimensional shapes, including rectangles, parallelograms, trapezoids, triangles, circles, right prisms, and cylinders.</p>	
	<p><b>7.5.5</b> Estimate and compute the area of more complex or irregular two-dimensional shapes by dividing them into more basic shapes.</p>	
	<p><b>7.5.6</b> Use objects and geometry modeling tools to compute the surface area of the faces and the volume of a three-dimensional object built from rectangular solids.</p>	

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>Statistics and Probability</b>		
<b>Use random sampling to draw inferences about a population.</b>		
<p><b>7.SP.1</b> 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><b>7.SP.2</b> 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. <i>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.</i></p>	<p><b>7.6.2</b> Make predictions from statistical data. <i>Example: Record the temperature and weather conditions (sunny, cloudy, or rainy) at 1 p.m. each day for two weeks. In the third week, use your results to predict the temperature from the weather conditions.</i></p>	<p>INCC 7.SP.1, 2 require a deeper understanding of random sampling and the variation in estimates and predictions.</p>

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>Draw informal comparative inferences about two populations.</b>		
<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. <i>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.</i></p>	<p><b>NEW</b></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. <i>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.</i></p>	<p><b>NEW</b></p>	
<b>Draw informal comparative inferences about two populations.</b>		
<p>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.</p>	<p>7.6.5 Know that if P is the probability of an event occurring, then 1 – P is the probability of that event not occurring. <i>Example: The weather forecast says that the probability of rain today is 0.3. What is the probability that it won't rain? Partial)</i></p>	<p>INCC 7.SP.5 is limited to the concept of probability as the number 0 to 1 that expresses the likelihood of an event. IAS moves beyond into the assigning of 1 - P as the probability of the event not occurring.</p>

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<p><b>7.SP.6</b> 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.</p>	<p><b>NEW</b></p>	
<p><b>7.SP.7</b> 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>	<p><b>NEW</b></p>	
<p><b>7.SP.7a</b> Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. <i>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.</i></p>	<p><b>NEW</b></p>	
<p><b>7.SP.7b</b> Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. <i>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?</i></p>	<p><b>NEW</b></p>	

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<p><b>7.SP.8</b> Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</p>	<p><b>7.6.6</b> Understand that the probability of either one or the other of two disjoint events occurring is the sum of the two individual probabilities.</p>	
	<p><b>7.6.7</b> Find the number of possible arrangements of several objects using a tree diagram.</p>	
<p><b>7.SP.8a</b> 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.</p>	<p><b>NEW</b></p>	
<p><b>7.SP.8b</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.</p>	<p><b>7.6.7</b> Find the number of possible arrangements of several objects using a tree diagram.</p>	
<p><b>7.SP.8c</b> 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?</p>	<p><b>NEW</b></p>	

Grade 7 Indiana's Common Core Standards (INCC)	Grade 7 Indiana Academic Standards (IAS)	Comment
<b>IAS Grade 7 Standards Not Matched by INCC at Grade 7</b>		
No match in INCC Grade 7.	7.1.1 Read, write, compare, and solve problems using whole numbers in scientific notation.	
No match in INCC Grade 7.	7.1.2 Compare and order rational and common irrational numbers and place them on a number line.	
No match in INCC Grade 7.	7.1.3 Identify rational and common irrational numbers from a list.	
No match in INCC Grade 7.	7.1.4 Understand and compute whole number powers of whole numbers.	
No match in INCC Grade 7.	7.1.5 Find the prime factorization of whole numbers and write the results using exponents.	
No match in INCC Grade 7.	7.1.6 Understand and apply the concept of square root.	
No match in INCC Grade 7.	7.1.7 Convert terminating decimals into reduced fractions.	
No match in INCC Grade 7.	7.3.6 Define slope as vertical change per unit of horizontal change and recognize that a straight line has constant slope or rate of change.	
No match in INCC Grade 7.	7.3.7 Find the slope of a line from its graph.	
No match in INCC Grade 7.	7.3.8 Draw the graph of a line given the slope and one point on the line, or two points on the line.	
No match in INCC Grade 7.	7.4.1 Understand coordinate graphs and use them to plot simple shapes, find lengths and areas related to the shapes, and find images under translations (slides), rotations (turns), and reflections (flips).	
No match in INCC Grade 7.	7.4.2 Understand that transformations such as slides, turns, and flips preserve the length of segments, and that figures resulting from slides, turns, and flips are congruent to the original figures.	

No match in INCC Grade 7.	<b>7.4.3</b> Know and understand the Pythagorean Theorem and use it to find the length of the missing side of a right triangle and the lengths of other line segments. Use direct measurement to test conjectures about triangles.	
No match in INCC Grade 7.	<b>7.4.4</b> Construct two-dimensional patterns (nets) for three-dimensional objects, such as right prisms, pyramids, cylinders, and cones.	Assessed in the classroom, not assessed on ISTEP+.
No match in INCC Grade 7.	<b>7.5.1</b> Compare lengths, areas, volumes, weights, capacities, times, and temperatures within measurement systems.	
No match in INCC Grade 7.	<b>7.5.2</b> Use experimentation and modeling to visualize similarity problems. Solve problems using similarity.	
No match in INCC Grade 7.	<b>7.6.1</b> Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots and justify the choice of display.	
No match in INCC Grade 7.	<b>7.6.3</b> Describe how additional data, particularly outliers, added to a data set may affect the mean, median, and mode.	
No match in INCC Grade 7.	<b>7.6.4</b> Analyze data displays, including ways that they can be misleading. Analyze ways in which the wording of questions can influence survey results.	

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At the end of this document, we have listed the IAS Grade 8 indicators that are not aligned to the Grade 8 INCC. These are presented in two ways: (1) IAS Grade 8 indicators that align to INCC at a different grade level, with the best match indicated in the first column; and (2) IAS Grade 8 indicators that do not match any INCC.

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>The Number System</b>		
<b>Know that there are numbers that are not rational, and approximate them by rational numbers.</b>		
<p><b>8.NS.1</b> 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><b>8.1.2</b> Know that every rational number is either a terminating or repeating decimal and that every irrational number is a nonrepeating decimal.</p>	<p>INCC requires students to show that rational numbers can be expanded into a repeating decimal and vice versa.</p>
<p><b>8.NS.2</b> 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., <math>\pi^2</math>). For example, by truncating the decimal expansion of <math>\sqrt{2}</math> (square root of 2), show that <math>\sqrt{2}</math> is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</p>	<p><b>8.1.7</b> Calculate and find approximations of square roots. <i>Example: For an integer that is not a perfect square, find the two integers (one larger, one smaller) that are closest to its square root and explain your reasoning.</i></p>	<p>INCC requires students to compare the size of irrational numbers using rational approximations and to approximate the locations of irrational numbers on a number line.</p>

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>Expressions and Equations</b>		
<b>Work with radicals and integer exponents.</b>		
<p><b>8.EE.1</b> Know and apply the properties of integer exponents to generate equivalent numerical expressions. <i>For example, <math>3^2 \times 3^{-5} = 3^{(-3)} = 1/(3^3) = 1/27</math>.</i></p>	8.1.4 Understand and evaluate negative integer exponents.	This aligns well with IAS 8.1.4, 8.1.5, and 8.3.3.
	8.1.5 Use the laws of exponents for integer exponents.	
	8.3.3 Interpret positive integer powers as repeated multiplication and negative integer powers as repeated division or multiplication by the multiplicative inverse.	
<p><b>8.EE.2</b> Use square root and cube root symbols to represent solutions to equations of the form <math>x^2 = p</math> and <math>x^3 = p</math>, where <math>p</math> is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that <math>\sqrt{2}</math> is irrational.</p>	8.1.6 Use the inverse relationship between squaring and finding the square root of a perfect square integer.	This aligns partially with IAS 8.1.6, 8.1.7 and 7.1.3. INCC includes cube roots and this concept represented with equations.
	8.1.7 Calculate and find approximations of square roots.	
<p><b>8.EE.3</b> 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. <i>For example, estimate the population of the United States as <math>3 \times 10^8</math> and the population of the world as <math>7 \times 10^9</math>, and determine that the world population is more than 20 times larger.</i></p>	8.1.1 Read, write, compare, and solve problems using decimals in scientific notation. <i>Example: Write 0.00357 in scientific notation.</i>	INCC.8.EE.3 requires students to apply the concept of scientific notation in the estimation of very large or very small quantities in a real-world context. Students also need to express how many times larger one number in scientific notation is than another.
<p><b>8.EE.4</b> 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.</p>		

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>Understand the connections between proportional relationships, lines, and linear equations.</b>		
<p><b>8.EE.5</b> 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.</p>	<p><b>8.3.5</b> Identify and graph linear functions and identify lines with positive and negative slope.</p> <p><b>8.3.6</b> Find the slope of a linear function given the equation and write the equation of a line given the slope and any point on the line.</p> <p><b>8.3.7</b> Demonstrate an understanding of rate as a measure of one quantity with respect to another quantity.</p> <p><b>8.3.8</b> Demonstrate an understanding of the relationships among tables, equations, verbal expressions, and graphs of linear functions.</p>	<p>This aligns partially with IAS 8.3.5, 8.3.6, 8.3.7, and 8.3.8. INCC includes interpreting unit rates (slope) and comparing two different proportional relationships.</p>
<p><b>8.EE.6</b> Use similar triangles to explain why the slope <math>m</math> is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation <math>y = mx</math> for a line through the origin and the equation <math>y = mx + b</math> for a line intercepting the vertical axis at <math>b</math>.</p>		<p>This is a new concept. See link: <a href="http://commoncoretools.files.wordpress.com/2011/04/INCC_progression_ee_2011_04_25.pdf">http://commoncoretools.files.wordpress.com/2011/04/INCC_progression_ee_2011_04_25.pdf</a></p>
<b>Analyze and solve linear equations and pairs of simultaneous linear equations.</b>		
<p><b>8.EE.7</b> Solve linear equations in one variable.</p>	<p><b>8.3.1</b> Write and solve linear equations and inequalities in one variable, interpret the solution or solutions in their context, and verify the reasonableness of the results.</p>	
<p><b>8.EE.7a</b> 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 <math>x = a</math>, <math>a = a</math>, or <math>a = b</math> results (where <math>a</math> and <math>b</math> are different numbers).</p>		<p>This aligns partially with IAS 8.3.1. INCC includes solving equations that include the use of the distributive property and equations that have infinite solutions and no solutions.</p>
<p><b>8.EE.7b</b> Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.</p>	<p><b>8.3.1</b> Write and solve linear equations and inequalities in one variable, interpret the solution or solutions in their context, and verify the reasonableness of the results.</p> <p><b>8.3.4</b> Use the correct order of operations to find the values of algebraic expressions involving powers.</p>	

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
8.EE.8 Analyze and solve pairs of simultaneous linear equations.	8.3.2 Solve systems of two linear equations using the substitution method and identify approximate solutions graphically. <i>Example: Solve the system. <math>2x + 3y = 7</math> <math>x + 2y = 5</math></i>	
8.EE.8a 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.	8.3.2 Solve systems of two linear equations using the substitution method and identify approximate solutions graphically. <i>Example: Solve the system. <math>2x + 3y = 7</math> <math>x + 2y = 5</math></i>	INCC 8.EE.8a requires students to identify the solution of two linear equations in two variables as the point(s) of intersection of their graphs and to describe the point(s) of intersection between two lines as points that satisfy both equations simultaneously.
8.EE.8b Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. <i>For example, <math>3x + 2y = 5</math> and <math>3x + 2y = 6</math> have no solution because <math>3x + 2y</math> cannot simultaneously be 5 and 6.</i>	8.3.2 Solve systems of two linear equations using the substitution method and identify approximate solutions graphically. <i>Example: Solve the system. <math>2x + 3y = 7</math> <math>x + 2y = 5</math></i>	INCC 8.EE.8b requires students to solve the two equations "algebraically" (e.g. substitution, elimination), while IAS 8.3.2 is limited to substitution.
8.EE.8c Solve real-world and mathematical problems leading to two linear equations in two variables. <i>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.</i>	8.3.2 Solve systems of two linear equations using the substitution method and identify approximate solutions graphically.	This aligns partially with IAS 8.3.2. INCC includes solving real-world problems involving pairs of equations.

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>Functions</b>		
<b>Define, evaluate, and compare functions.</b>		
<p><b>8.F.1</b> 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. 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><b>8.F.2</b> 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></p>	<p><b>8.3.8</b> Demonstrate an understanding of the relationships among tables, equations, verbal expressions, and graphs of linear functions.</p>	<p>This aligns partially with IAS 8.3.8. INCC includes comparing properties of two functions.</p>
<p><b>8.F.3</b> Interpret the equation <math>y = mx + b</math> as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. <i>For example, the function <math>A = s^2</math> 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>	<p><b>8.3.5</b> Identify and graph linear functions and identify lines with positive and negative slope.</p>	<p>INCC 8.F.3 requires students to provide examples of non-linear functions.</p>
	<p><b>8.3.6</b> Find the slope of a linear function given the equation and write the equation of a line given the slope and any point on the line.</p>	
	<p><b>8.3.10</b> Graph functions of the form <math>y = nx^2</math> and <math>y = nx^3</math> and describe the similarities and differences in the graphs.</p>	
<b>Use functions to model relationships between quantities.</b>		
<p><b>8.F.4</b> 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><b>8.3.7</b> Demonstrate an understanding of rate as a measure of one quantity with respect to another quantity.</p>	<p>INCC 8.F.4 requires students to construct a function to model a linear relationship between two quantities and to relate the rate of change and initial value to real world quantities in a linear function in terms of the situation modeled and in terms of its graph or a table of values.</p>
	<p><b>8.3.8</b> Demonstrate an understanding of the relationships among tables, equations, verbal expressions, and graphs of linear functions.</p>	

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<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>		

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>Geometry</b>		
<b>Draw, construct, and describe geometrical figures and describe the relationships between them.</b>		
<b>8.G.1</b> Verify experimentally the properties of rotations, reflections, and translations:		
<b>8.G.1a</b> Lines are taken to lines, and line segments to line segments of the same length.	<b>8.4.4</b> Draw the translation (slide), rotation (turn), reflection (flip), and dilation (stretches and shrinks) of shapes. <i>Example: Draw a rectangle and slide it 3 inches horizontally across your page. Then rotate it clockwise through 90° about the bottom left vertex. Draw the new rectangle in a different color.</i>	This aligns partially with IAS 8.4.4, 7.4.1 and 7.4.2.
<b>8.G.1b</b> Angles are taken to angles of the same measure.		
<b>8.G.1c</b> Parallel lines are taken to parallel lines.		
<b>8.G.2</b> 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.	<b>8.4.4</b> Draw the translation (slide), rotation (turn), reflection (flip), and dilation (stretches and shrinks) of shapes.	This aligns partially with IAS 8.4.4, 7.4.1 and 7.4.2.
<b>8.G.3</b> Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates.	<b>8.4.4</b> Draw the translation (slide), rotation (turn), reflection (flip), and dilation (stretches and shrinks) of shapes.	This aligns partially with IAS 8.4.4, 7.4.1 and 7.4.2.
<b>8.G.4</b> 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.	<b>8.4.4</b> Draw the translation (slide), rotation (turn), reflection (flip), and dilation (stretches and shrinks) of shapes.	This aligns partially with IAS 8.4.4, 7.4.1 and 7.4.2.
<b>8.G.5</b> 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 three angles appear to form a line, and give an argument in terms of transversals why this is so.</i>		

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>Understand and apply the Pythagorean Theorem.</b>		
<b>8.G.6</b> Explain a proof of the Pythagorean Theorem and its converse.	<b>8.4.5</b> Use the Pythagorean Theorem and its converse to solve problems in two and three dimensions.	This aligns partially with IAS 8.4.5. INCC requires a proof.
<b>8.G.7</b> Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	<b>8.4.5</b> Use the Pythagorean Theorem and its converse to solve problems in two and three dimensions.	INCC does not specify using the converse of the Pythagorean Theorem to solve problems.
<b>8.G.8</b> Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	<b>8.4.5</b> Use the Pythagorean Theorem and its converse to solve problems in two and three dimensions.	This aligns partially with IAS 8.4.5. INCC includes finding the distance between points in a coordinate system using the Pythagorean Theorem.
<b>Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.</b>		
<b>8.G.9</b> Know the formulas for the volume of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	<b>8.5.4</b> Use formulas for finding the perimeter and area of basic two-dimensional shapes and the surface area and volume of basic three-dimensional shapes, including rectangles, parallelograms, trapezoids, triangles, circles, prisms, cylinders, spheres, cones, and pyramids. <i>Example: Find the total surface area of a right triangular prism 14 feet high and with a base that measures 8 feet by 6 feet.</i>	INCC 8.G.9 is limited to volume of cones, cylinders, and spheres.  *NOTE: The area of a trapezoid is not required in INCC until high school.

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
<b>Statistics and Probability</b>		
<b>Investigate patterns of association in bivariate data.</b>		
<p><b>8.SP.1</b> 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.</p>	<p><b>8.6.5</b> Represent two-variable data with a scatter plot on the coordinate plane and describe how the data points are distributed. If the pattern appears to be linear, draw a line that appears to best fit the data and write the equation of that line.</p>	<p>INCC 8.SP.1 requires students to address specific types of patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.</p>
<p><b>8.SP.2</b> 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><b>8.6.5</b> Represent two-variable data with a scatter plot on the coordinate plane and describe how the data points are distributed. If the pattern appears to be linear, draw a line that appears to best fit the data and write the equation of that line.</p>	<p>INCC 8.SP.2 requires students to informally assess the fitness of the model line by evaluating the closeness of the data points to the model line.</p>
<p><b>8.SP.3</b> Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. <i>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.</i></p>		
<p><b>8.SP.4</b> 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. <i>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?</i></p>		

Grade 8 Indiana's Common Core Standards (INCC)	Grade 8 Indiana Academic Standards (IAS)	Comment
No match in INCC Grade 8.	<b>8.1.3</b> Understand that computations with an irrational number and a rational number (other than zero) produce an irrational number.	This IAS is assessed in the classroom; not assessed on the Grade 8 ISTEP+.  See high school INCC N-RN.3
No match in INCC Grade 8.	<b>8.2.1</b> Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) in multi-step problem	7.NS.1 7.NS.2 7.NS.3 7.EE.3
No match in INCC Grade 8.	<b>8.2.2</b> Solve problems by computing simple and compound interest.	7.RP.1 = simple interest  Compound interest is referenced in the example in the high school standard A-SSE.3c
No match in INCC Grade 8.	<b>8.2.3</b> Use estimation techniques to decide whether answers to computations on a calculator are reasonable.	This IAS is assessed in the classroom; not assessed on the Grade 8 ISTEP+.  INCC does not mention calculators in this regard; however estimation and reasonableness is part of 7.EE.3
No match in INCC Grade 8.	<b>8.2.4</b> Use mental arithmetic to compute with common fractions, decimals, powers, and percents.	7.EE.3
No match in INCC Grade 8.	<b>8.3.4</b> Use the correct order of operations to find the values of algebraic expressions involving powers.	6.EE.2c
No match in INCC Grade 8.	<b>8.4.1</b> Identify and describe basic properties of geometric shapes: altitudes, diagonals, angle and perpendicular bisectors, central angles, radii, diameters, and chords.	7.G.4 = area and circumference of circles  The remainder of this IAS is covered in INCC high school geometry.
No match in INCC Grade 8.	<b>8.4.2</b> Perform simple constructions, such as bisectors of segments and angles, copies of segments and angles, and perpendicular segments. Describe and justify the constructions.	G.CO.12
No match in INCC Grade 8.	<b>8.4.3</b> Identify properties of three-dimensional geometric objects (e.g., diagonals of rectangular solids) and describe how two or more figures intersect in a plane or in space.	7.G.3 INCC high school geometry
No match in INCC Grade 8.	<b>8.5.1</b> Convert common measurements for length, area, volume, weight, capacity, and time to equivalent measurements within the same system.	5.MD.1 6.RP.3d

No match in INCC Grade 8.	<b>8.5.2</b> Solve simple problems involving rates and derived measurements for attributes such as velocity and density.	6.RP.2 6.RP.3 7.RP.1
No match in INCC Grade 8.	<b>8.5.3</b> Solve problems involving scale factors, area, and volume using ratio and proportion.	7.G.1 7.RP.2
No match in INCC Grade 8.	<b>8.5.5</b> Estimate and compute the area of irregular two-dimensional shapes and the volume of irregular three-dimensional objects by breaking them down into more basic geometric objects.	6.G.1 6.G.2 7.G.6
No match in INCC Grade 8.	<b>8.6.1</b> Identify claims based on statistical data and, in simple cases, evaluate the reasonableness of the claims. Design a study to investigate the claim.	Not a specific requirement of INCC; partially covered in the Grades 6-8 Statics and Probability Standards
No match in INCC Grade 8.	<b>8.6.2</b> Identify different methods of selecting samples, analyzing the strengths and weaknesses of each method, and the possible bias in a sample or display.	7.SP.1 7.SP.2
No match in INCC Grade 8.	<b>8.6.3</b> Understand the meaning of, and be able to identify or compute the minimum value, the lower quartile, the median, the upper quartile, the interquartile range, and the maximum value of a data set.	6.SP.4 6.SP.5c,d 7.SP.4
No match in INCC Grade 8.	<b>8.6.6</b> Understand and recognize equally likely events.	7.SP.5 7.SP.8
No match in INCC Grade 8.	<b>8.6.7</b> Find the number of possible arrangements of several objects by using the Basic Counting Principle.	Not addressed in INCC through Grade 8.



**Grade 1 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.1 Ask and answer questions about key details in a text.	1.2.3 Respond to who, what, when, where, why, and how questions and recognize the main idea of what is read.	By responding to the types of questions described in the Indiana Academic Standard, students will meet the expectation of the Common Core Standard.
RI.2 Identify the main topic and retell key details of a text.	1.2.3 Respond to who, what, when, where, why, and how questions and recognize the main idea of what is read.	The Common Core Standard emphasizes the ability of the student to retell the keys details of a text.
RI.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text.		This Common Core Standard is <b>NEW!</b>
RI.4 Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	1.2.5 Use context (the meaning of the surrounding text) to understand word and sentence meanings.	While context may be used as the Indiana Academic Standard indicates, the Common Core Standard requires students to ask and answer questions to determine the meaning of words or phrases.
RI.5 Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	1.2.1 Identify the title, author, illustrator, and table of contents of a reading selection.	The Common Core Standard emphasizes how a variety of text features reveal key facts or information. The Indiana Academic Standard provides a specific student performance that meets part of the Common Core Standard's expectation.
RI.6 Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.		This Common Core Standard is <b>NEW!</b>
RI.7 Use the illustrations and details in a text to describe its key ideas.		This Common Core Standard is <b>NEW!</b>
RI.8 Identify the reasons an author gives to support points in a text.		This Common Core Standard is <b>NEW!</b>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.9 Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).		This Common Core Standard is <b>NEW!</b>
RI.10 With prompting and support, read informational texts appropriately complex for grade 1.	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity.  <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.1 Ask and answer questions about key details in a text.	1.3.5 Understand what is read by responding to questions (who, what, when, where, why, how).	By responding to the types of questions described in the Indiana Academic Standard, students will meet the expectation of the Common Core Standard.
RL.2 Retell stories, including key details, and demonstrate understanding of their central message or lesson.	1.3.1 Identify and describe the plot, setting, and character(s) in a story. Retell a story's beginning, middle, and ending.	The Common Core Standard requires students to retell the central message or lesson in a story. The plot, setting, and character(s) in a story should be included as key details in the student's retelling.
RL.3 Describe characters, settings, and major events in a story, using key details.	1.3.1 Identify and describe the plot, setting, and character(s) in a story. Retell a story's beginning, middle, and ending.	The Common Core Standard and the Indiana Academic Standard are an excellent match.
RL.4 Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.		This Common Core Standard is <b>NEW!</b>
RL.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.	1.3.4 Distinguish fantasy from reality.	The Common Core Standard emphasizes the ability of students to explain major differences between informational (reality-based) and fictional (fantasy-based) books.
RL.6 Identify who is telling the story at various points in a text.		This Common Core Standard is <b>NEW!</b>
RL.7 Use illustrations and details in a story to describe its characters, setting, or events.	1.3.1 Identify and describe the plot, setting, and character(s) in a story. Retell a story's beginning, middle, and ending.	The Common Core Standard includes the use of illustrations as a meaningful way to describe a story's characters, setting, or events.
RL.8 (Not applicable to literature)		
RL.9 Compare and contrast the adventures and experiences of characters in stories.		This Common Core Standard is <b>NEW!</b>
RL.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.	Standard 3 - Reading: Comprehension and Analysis of Literary Text	While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Foundational Skills for Reading	Reading: Word Recognition, Fluency, and Vocabulary Development	
<p>RF.1 Demonstrate understanding of the organization and basic features of print.</p> <p>a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).</p>	<p>1.1.3 Recognize that sentences start with capital letters and end with punctuation, such as periods, question marks, and exclamation points.</p>	<p>The Common Core Standard and Indiana Academic Standard are an excellent match.</p>
<p>RF.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).</p> <p>a. Distinguish long from short vowel sounds in spoken single-syllable words.</p> <p>b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.</p> <p>c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.</p> <p>d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).</p>	<p>1.1.4 Distinguish beginning, middle, and ending sounds in single-syllable words (words with only one vowel sound).</p> <p>1.1.5 Recognize different vowel sounds in orally stated single-syllable words.</p> <p>1.1.9 Blend two to four phonemes (sounds) into recognizable words.</p> <p>1.1.10 Generate the sounds from all the letters and from a variety of letter patterns, including consonant blends and long- and short-vowel patterns (a, e, i, o, u), and blend those sounds into recognizable words.</p>	<p>The Common Core Standard adds understanding spoken words, syllables, and sounds.</p>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Foundational Skills for Reading	Reading: Word Recognition, Fluency, and Vocabulary Development	Instructional Transition Guidance
<p>RF.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Know the spelling-sound correspondences for common consonant digraphs (two letters that represent one sound).</p> <p>b. Decode regularly spelled one-syllable words.</p> <p>c. Know final -e and common vowel team conventions for representing long vowel sounds.</p> <p>d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.</p> <p>e. Decode two-syllable words following basic patterns by breaking the words into syllables.</p> <p>f. Read words with inflectional endings.</p> <p>g. Recognize and read grade-appropriate irregularly spelled words.</p>	<p>1.1.10 Generate the sounds from all the letters and from a variety of letter patterns, including consonant blends and long- and short-vowel patterns (a, e, i, o, u), and blend those sounds into recognizable words.</p> <p>1.1.9 Blend two to four phonemes (sounds) into recognizable words. 1.1.13</p> <p>Read words by using knowledge of vowel digraphs (two vowels that make one sound such as the ea in eat) and knowledge of how vowel sounds change when followed by the letter r (such as the ea in the word ear).</p> <p>1.1.5 Recognize different vowel sounds in orally stated single-syllable words.</p> <p>1.1.17 Read and understand root words (look) and their inflectional forms (looks, looked, looking).</p> <p>1.1.16 Read and understand simple compound words (birthday, anything) and contractions (<i>isn't aren't can't won't</i>)</p> <p>Standard 1 Students understand the basic features of words. They see letter patterns and know how to translate them into spoken language by using phonics (an understanding of the different letters that make different sounds), syllables, and word parts (-s, -ed, -ing). They apply this knowledge to achieve fluent (smooth and clear) oral and silent reading.</p>	<p>The Common Core added knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. Indiana's Academic Standards assume students could decode two-syllable words through the reading of compound words. The Common Core standard is more explicit.</p>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Foundational Skills for Reading	Reading: Word Recognition, Fluency, and Vocabulary Development	
<p>RF.4 Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read grade-level text with purpose and understanding.</p> <p>b. Read grade-level text orally with accuracy, appropriate rate, and expression.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>	<p>1.1.15 Read aloud smoothly and easily in familiar text.</p> <p>1.1.12 Use phonic and context clues as self-correction strategies when reading.</p>	<p>The Common Core adds the element of "<i>with purpose and understanding.</i>"</p>
<p><b>IAS for which there are no CCSS matches: 1.1.1, 1.1.2, 1.1.6, 1.1.7, 1.1.8, 1.1.11, 1.1.14, 1.1.19</b></p>		

**Grade 1 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
W.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.	1.4.2 Use various organizational strategies to plan writing.  1.5.5 Write for different purposes and to a specific audience or person.	The Common Core Standard adds opinion pieces. The expectations of the Indiana Academic Standards are subsumed by the Common Core Standard.
W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	1.4.2 Use various organizational strategies to plan writing.  1.5.2 Write brief expository (informational) descriptions of a real object, person, place, or event, using sensory details.  1.5.5 Write for different purposes and to a specific audience or person.	The Common Core Standard provides a more rigorous expectation for the development of informative pieces. The expectations of the Indiana Academic Standards are subsumed by the Common Core Standard.
W.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.	1.4.2 Use various organizational strategies to plan writing. 1.5.1 Write brief narratives (stories) describing an experience. 1.5.5 Write for different purposes and to a specific audience or person.	The Common Core Standard provides a more rigorous expectation for the development of narrative pieces. The expectations of the Indiana Academic Standards are subsumed by the Common Core Standard.
W.4 (Begins in grade 3)		
W.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.	1.4.1 Discuss ideas and select a focus for group stories or other writing. 1.4.3 Revise writing for others to read. 1.4.4 Begin asking questions to guide topic selection and ask how and why questions about a topic of interest.	The Indiana Academic Standards provide specific student performances that meet the expectations of the Common Core Standard.
W.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.		This Common Core Standard is <b>NEW!</b>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
W.7 Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).		This Common Core Standard is <b>NEW!</b>
W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	1.4.5 Identify a variety of sources of information (books, online sources, pictures, charts, tables of contents, diagrams) and document the sources (titles).	The Common Core Standard provides a purpose, answering a question, for students to gather information from experiences and sources.
W.9 (Begins in grade 4)		
W.10 (Begins in grade 3)		

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Print all upper- and lowercase letters.</p> <p>b. Use common, proper, and possessive nouns.</p> <p>c. Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop).</p> <p>d. Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their, anyone, everything).</p> <p>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).</p> <p>f. Use frequently occurring adjectives.</p> <p>g. Use frequently occurring conjunctions (e.g., and, but, or, so, because).</p> <p>h. Use determiners (e.g., articles, demonstratives).</p> <p>i. Use frequently occurring prepositions (e.g., during, beyond, toward).</p> <p>j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.</p>	<p>1.6.1 Print legibly and space letters, words, and sentences appropriately.</p> <p>1.6.2 Write in complete sentences.</p> <p>1.6.3 Identify and correctly use singular and plural nouns (dog/dogs).</p> <p>1.6.5 Identify and correctly write possessive nouns (cat's meow, girls' dresses) and possessive pronouns (my/mine, his/hers).</p>	<p>The Common Core Standard adds indefinite pronouns; matching verbs with singular and plural nouns (subject/verb agreement); past, present, and future verbs; frequently occurring adjectives conjunctions, and determiners; and simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.</p>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b> <b>Writing: English Language Conventions</b>	Instructional Transition Guidance
<p>L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Capitalize dates and names of people.</p> <p>b. Use end punctuation for sentences.</p> <p>c. Use commas in dates and to separate single words in a series.</p> <p>d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.</p> <p>e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.</p>	<p>1.6.6 Correctly use periods (I am five.), exclamation points (Help!), and question marks (How old are you?) at the end of sentences.</p> <p>1.6.7 Capitalize the first word of a sentence, names of people, and the pronoun I.</p> <p>1.6.8 Spell correctly three- and four-letter words (can, will) and grade-level-appropriate sight words (red, fish).</p>	<p>The Common Core Standard adds capitalizing dates and the use of commas in dates and to separate words in a series.</p>
<p>L.3 (Begins in grade 2)</p>		
<p>L.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> <p>b. Use frequently occurring affixes as a clue to the meaning of a word.</p> <p>c. Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking).</p>	<p>1.1.17 Read and understand root words (look) and their inflectional forms (looks, looked, looking).</p>	<p>The Common Core Standard subsumes the Indiana Academic Standard and requires students to determine meanings of words using knowledge of word parts and context clues.</p>

**Grade 1 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.5 With guidance and support from adults, demonstrate understanding of figurative language, word relationships and nuances in word meanings.</p> <p>a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.</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>c. Identify real-life connections between words and their use (e.g., note places at home that are cozy).</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>	<p>1.1.18 Classify categories of words.</p>	<p>The Common Core Standard provides a more rigorous expectation for students to be able to understand figurative language, word relationships, and nuances in word meanings and they categorize and discuss uses of words.</p>
<p>L.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., because).</p>	<p>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this Common Core Standard are not new, there is a more explicit requirement that students acquire and use words and phrases through conversations as well as while being read to and responding to texts.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>



**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Informational Text	Reading: Comprehension and Analysis of Nonfiction and Informational Text	
RI.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	2.2.4 Ask and respond to questions (when, who, where, why, what if, how) to aid comprehension about important elements of informational texts.	The Common Core Standard and the Indiana Academic Standard are a good match.
RI.2 Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.		This Common Core Standard is <b>NEW!</b>
RI.3 Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.		This Common Core Standard is <b>NEW!</b>
RI.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.	2.2.9 Use context (the meaning of the surrounding text) to understand word and sentence meanings.	The Common Core Standard and the Indiana Academic Standard are a good match.
RI.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.	2.2.1 Use titles, tables of contents, and chapter headings to locate information in text.	The Common Core Standard and the Indiana Academic Standard are a good match; however, the examples of text features are somewhat dissimilar (more numerous and varied in the CCSS).
RI.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.	2.2.3 Use knowledge of the author's purpose(s) to comprehend informational text.	The Common Core Standard requires students to identify the main purpose of a text, including what the author wants to answer, explain, or describe.
RI.7 Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.	2.2.7 Interpret information from diagrams, charts, and graphs.	The Common Core Standard requires students to relate how images " <i>contribute to and clarify a text.</i> "
RI.8 Describe how reasons support specific points the author makes in a text.		This Common Core Standard is <b>NEW!</b>

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.9 Compare and contrast the most important points presented by two texts on the same topic.		This Common Core Standard is <b>NEW!</b>
RI.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.	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity.  <u>Please click here to view Appendix A for more information on text complexity.</u>
<b>IAS for which there are no CCSS matches: 2.2.2, 2.2.5, 2.2.6, 2.2.8, 2.1.10, 2.2.11</b>		

**Grade 2 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.		This Common Core Standard is <b>NEW!</b> (However, a simpler form of this skill is found in the Indiana Academic Standards for Grade 1.)
RL.2 Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	2.3.7 Identify the meaning or lesson of a story.	The Common Core Standard also requires students to recount stories, including fables and folktales, and determine the central message or moral.
RL.3 Describe how characters in a story respond to major events and challenges.		This Common Core Standard is <b>NEW!</b>
RL.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.	2.3.4 Identify the use of rhythm, rhyme, and alliteration (using words with repeating consonant sounds) in poetry or fiction.	The Common Core Standard and the Indiana Academic Standard are a good match; however, the Common Core Standard includes numerous examples of words and phrases and requires students to describe how words and phrases supply rhythm and meaning in a story, poem, or song.
RL.5 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.		This Common Core Standard is <b>NEW!</b>
RL.6 Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.		This Common Core Standard is <b>NEW!</b>
RL.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.		This Common Core Standard is <b>NEW!</b>

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.8 (Not applicable to literature)		
RL.9 Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.	2.3.3 Compare and contrast versions of same stories from different cultures.	The Common Core Standard and the Indiana Academic Standard are a good match.
RL.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.	Standard 3 - Reading: Comprehension and Analysis of Literary Text	While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity.  <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>
<b>IAS for which there are no CCSS matches: 2.3.1, 2.3.2, 2.3.5, 2.3.6</b>		

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Foundational Skills for Reading	Reading: Word Recognition, Fluency, and Vocabulary Development	Instructional Transition Guidance
<p>RF.3 Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Distinguish long and short vowels when reading 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> <p>e. Identify words with inconsistent but common spelling-sound correspondences.</p> <p>f. Recognize and read grade-appropriate irregularly spelled words.</p>	<p>2.1.3 Decode (sound out) regular words with more than one syllable (dinosaur, vacation).</p> <p>1.1.13 Read words by using knowledge of vowel digraphs (two vowels that make one sound such as the ea in eat) and knowledge of how vowel sounds change when followed by the letter r (such as the ea in the word ear).</p>	<p>The Common Core Standard requires that students decode regularly spelled two-syllable words with long vowels, and words with common prefixes and suffixes, identify words with inconsistent but common spelling-sound correspondences, and read grade-appropriate irregularly spelled words.</p>
<p>RF.4 Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read grade-level text with purpose and understanding.</p> <p>b. Read grade-level text orally with accuracy, appropriate rate, and expression.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>	<p>2.1.6 Read aloud fluently and accurately with appropriate changes in voice and expression.</p> <p>1.1.12 Use phonic and context clues as self-correction strategies when reading.</p>	<p>The Common Core Standard emphasizes the idea of reading grade-level text "<i>with purpose and understanding</i>." The expectation for self-correction from Indiana's Standards continues throughout the elementary grades in the Common Core Standards.</p>
<p><b>IAS for which there are no CCSS matches: 2.1.1, 2.1.2, 2.1.4, 2.1.5, 2.1.11</b></p>		

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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>This Common Core Standard is <b>NEW!</b></p>
<p>W.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>2.5.2 Write a brief description of a familiar object, person, place, or event that:</p> <ul style="list-style-type: none"> <li>• develops a main idea.</li> <li>• uses details to support the main idea.</li> </ul> <p>2.5.6 Write for different purposes and to a specific audience or person.</p> <p>2.5.7 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of what is read.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The Common Core Standard requires the writing of "<i>informative/explanatory text</i>" and a concluding statement or section, which are more specific expectations than what are prescribed by the Indiana Academic Standards.</p>
<p>W.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>	<p>2.5.1 Write brief narratives based on experiences that:</p> <ul style="list-style-type: none"> <li>• move through a logical sequence of events (chronological order, order of importance).</li> <li>• describe the setting, characters, objects, and events in detail.</li> </ul> <p>2.5.6 Write for different purposes and to a specific audience or person.</p>	<p>The Common Core Standard and the Indiana Academic Standard are a good match. The Common Core Standard also emphasizes the use of "temporal words to signal event order and provide a sense of closure."</p>
<p>W.4 (Begins in grade 3)</p>		

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.</p>	<p>2.4.1 Create a list of ideas for writing.            2.4.2 Organize related ideas together to maintain a consistent focus.            2.4.3 Find ideas for writing stories and descriptions in pictures or books.            2.4.6 Review, evaluate, and revise writing for meaning and clarity.            2.4.7 Proofread one’s own writing, as well as that of others, using an editing checklist or list of rules.            2.4.8 Revise original drafts to improve sequence (the order of events) or to provide more descriptive detail.</p>	<p>The Common Core Standard and these Indiana Academic Standards are a good match.</p>
<p>W.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p>	<p>2.4.5 Use a computer to draft, revise, and publish writing.</p>	<p>The Common Core Standard and the Indiana Academic Standard are a relatively good match; however, the Common Core Standard requires guidance from adults in using a variety of digital tools (not just a computer) and collaborating with peers in the writing process.</p>

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
W.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).	2.5.8 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that: <ul style="list-style-type: none"> <li>• uses a variety of resources (books, technology, pictures, charts, tables of contents, diagrams) and documents sources (titles and authors).</li> <li>• organizes information by categorizing it into single categories (such as size or color) or includes information gained through observation.</li> </ul>	The Common Core Standard and these Indiana Academic Standards are a relatively good match. The Common Core Standard expectation is for students to conduct "shared research." The Common Core expectation is that multiple projects will take place throughout the year.
W.8 Recall information from experiences or gather information from provided sources to answer a question.		This Common Core Standard is <b>NEW!</b>
W.9 (Begins in grade 4)		
W.10 (Begins in grade 3)		
<b>IAS for which there are no CCSS matches: 2.4.4, 2.5.3, 2.5.4, 2.5.5</b>		

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Use collective nouns (e.g., group).</p> <p>b. Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).</p> <p>c. Use reflexive pronouns (e.g., myself, ourselves).</p> <p>d. Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).</p> <p>e. Use adjectives and adverbs, and choose between them depending on what is to be modified.</p> <p>f. Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).</p>	<p>2.1.5 Identify and correctly use regular plural words (mountain/mountains) and irregular plural words (child/children, mouse/mice).</p> <p>2.6.4 Identify and correctly write various parts of speech, including nouns (words that name people, places, or things) and verbs (words that express action or help make a statement).</p> <p>2.6.2 Distinguish between complete (When Tom hit the ball, he was proud.) and incomplete sentences (When Tom hit the ball).</p> <p>2.6.3 Use the correct word order in written sentences.</p>	<p>The Common Core Standard and Indiana Academic Standards are a partial match. The Common Core Standards require students to use these parts of speech not included in the Indiana Academic Standards: collective nouns, reflexive pronouns, past tense of frequently occurring irregular verbs, adjectives and adverbs (and understand what's being modified). The Common Core Standard requires students to produce and expand simple and compound sentences in contrast to the Indiana Academic Standards, which only require students to distinguish between complete and incomplete sentences. Please note that these Common Core Standards are <b>NEW: 2.L.1.a, c, and e.</b></p>

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b> <b>Writing: English Language Conventions</b>	Instructional Transition Guidance
<p>L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Capitalize holidays, product names, and geographic names.</p> <p>b. Use commas in greetings and closings of letters.</p> <p>c. Use an apostrophe to form contractions and frequently occurring possessives.</p> <p>d. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).</p> <p>e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</p>	<p>2.6.7 Capitalize all proper nouns (names of specific people or things, such as Mike, Indiana, Jeep), words at the beginning of sentences and greetings, months and days of</p> <p>2.6.5 Use commas in the greeting (Dear Sam,) and closure of a letter (Love, or Your friend,) and with dates (March 22, 2000) and items in a series (Tony, Steve, and Bill).</p> <p>2.6.9 Spell correctly words with short and long vowel sounds (a, e, i, o, u), r-controlled vowels (ar, er, ir, or, ur), and consonant-blend patterns (bl, dr, st).</p> <ul style="list-style-type: none"> <li>• short vowels: actor, effort, ink, chop, unless</li> <li>• long vowels: ace, equal, bind, hoe, use</li> <li>• r-controlled: park, supper, bird, corn, further</li> <li>• consonant blends: blue, crash, desk, speak, coast</li> </ul>	<p>The Common Core Standard and the Indiana Academic Standard illustrate variations regarding the specialization of capitalization and punctuation; students must capitalize historical periods and special events as well as use commas in dates and between items in a series. The Common Core Standard requires students to use apostrophes to form possessives and contractions and to use reference materials to check spellings. The Indiana Academic Standard is more specific about the spelling patterns that should be learned in grade 2.</p>
<p>L.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Compare formal and informal uses of English.</p>		<p>This Common Core Standard is <b>NEW!</b></p>

**Grade 2 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b> <b>Writing: English Language Conventions</b>	Instructional Transition Guidance
<p>L.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>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 prefix is added to a known word (e.g., happy/unhappy, tell/retell).</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> <p>d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark).</p> <p>e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.</p>	<p>2.1.10 Identify simple multiple-meaning words (change, duck).</p> <p>2.1.9 Know the meaning of simple prefixes (word parts added at the beginning of words such as un-) and suffixes (word parts added at the end of words such as -ful).</p> <p>2.1.8 Use knowledge of individual words to predict the meaning of unknown compound words (lunchtime, lunchroom, daydream, raindrop).</p>	<p>The Common Core Standard requires that students use sentence-level context as a clue to the meaning of a word or phrase, know the meaning of simple suffixes, use a known root word as a clue to the meaning of an unknown word with the same root, and use glossaries and beginning dictionaries (print and digital) to determine or clarify the meaning of words or phrases.</p>

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.5 Demonstrate understanding of figurative language, word relationships and nuances in word meanings.</p> <p>a. Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).</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>	<p>2.1.7 Understand and explain common synonyms (words with the same meaning) and antonyms (words with opposite meanings).</p>	<p>The Common Core Standard requires that students identify real-life connections between words and their use. The Common Core Standard expects students to distinguish subtleties in meaning between similar words whereas the Indiana Academic Standard requires students to know specific synonyms and antonyms.</p>
<p>L.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>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this Common Core Standard are not new, there is a more explicit requirement that students acquire and use words and phrases through conversations, reading and being read to, and while responding to texts.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>
<p><b>IAS for which there are no CCSS matches: 2.6.1, 2.6.8</b></p>		

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	Instructional Transition Guidance
<p>SL.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>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).</p> <p>b. Build on others' talk in conversations by linking their comments to the remarks of others.</p> <p>c. Ask for clarification and further explanation as needed about the topics and texts under discussion.</p>		<p>Since the Indiana Academic Standards for Listening and Speaking are not currently assessed on ISTEP+ assessments, educators and students should implement the Common Core Standards for Speaking and Listening as soon as possible.</p>
<p>SL.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p>		
<p>SL.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>		
<p>SL.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p>		

**Grade 2 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
SL.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.		The Common Core Standards for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information.
SL.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.		

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	3.2.2 Ask questions and support answers by connecting prior knowledge with literal information from the text. 3.2.3 Show understanding by identifying answers in the text.	The INCC and the IAS are an excellent match. The INCC is a more succinct expression of two IAS.
RI.2 Determine the main idea of a text; recount the key details and explain how they support the main idea.	3.2.5 Distinguish the main idea and supporting details in expository (informational) text.	The INCC requires students to explain how key details support the main idea(s) of a text.
RI.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.		This INCC Standard is <b>NEW!</b>
RI.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.	3.1.5 Demonstrate knowledge of grade-level-appropriate words to speak specifically about different issues.	The INCC emphasizes acquisition of general academic and domain-specific words. Also, please note that the IAS is from Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development.
RI.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	3.2.1 Use titles, tables of contents, chapter headings, a glossary, or an index to locate information in text.	The INCC references search tools (e.g., key words, sidebars, hyperlinks). Parts of IAS 3.2.1 are found in Grade 2 of the INCC.
RI.6 Distinguish their own point of view from that of the author of a text.		This INCC Standard is <b>NEW!</b>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.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).	3.2.3 Show understanding by identifying answers in the text.	The INCC provides greater specificity and refers to illustrations as a source of information.
RI.8 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).	3.2.9 Identify text that uses sequence or other logical order (alphabetical, time, categorical).	The INCC and the IAS are a good match. The examples of logical connections are slightly dissimilar.
RI.9 Compare and contrast the most important points and key details presented in two texts on the same topic.		This INCC Standard is <b>NEW!</b>
RI.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	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u>Please click here to view Appendix A for more information on text complexity.</u>

**Grade 3 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.		This INCC Standard is <b>NEW!</b> (in the context of literature)
RL.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.	3.3.4 Determine the theme or author’s message in fiction and nonfiction text. 3.3.2 Comprehend basic plots of classic fairy tales, myths, folktales, legends, and fables from around the world.	The INCC requires students to recount stories and to explain how the theme, lesson, or moral is conveyed through key details in the text.
RL.3 Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	3.3.3 Determine what characters are like by what they say or do and by how the author or illustrator portrays them.	The INCC emphasizes how character actions contribute to the sequence of events.
RL.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.		This INCC Standard is <b>NEW!</b>
RL.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.		This INCC Standard is <b>NEW!</b>
RL.6 Distinguish their own point of view from that of the narrator or those of the characters.	3.3.6 Identify the speaker or narrator in a selection.	The INCC extends the expectation of the IAS.

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.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 character or setting).	3.3.3 Determine what characters are like by what they say or do and by how the author or illustrator portrays them.	The INCC and the IAS are a poor match. The INCC emphasizes how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story.
RL.8 (Not applicable to literature)		
RL.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).		This INCC Standard is <b>NEW!</b>
RL.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	Standard 3 - Reading: Comprehension and Analysis of Literary Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<p style="text-align: center;"><b>Foundational Skills for Reading</b></p>	<p style="text-align: center;"><b>Reading: Word Recognition, Fluency, and Vocabulary Development</b></p>	
<p>RF.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>Standard 1 Students understand the basic features of words. They select letter patterns and know how to translate them into spoken language using phonics (an understanding of the different letters that make different sounds), syllables, word parts (un-, -ful), and context (the meaning of the text around a word). They apply this knowledge to achieve fluent (smooth and clear) oral and silent reading. 3.1.2 Read words with several syllables. 3.1.8 Use knowledge of prefixes (word parts added at the beginning of words such as un-, pre-) and suffixes (word parts added at the end of words such as -er, -ful, -less) to determine the meaning of words.</p>	<p>In addition to applying decoding skills, IAS ask students to determine meanings of words.</p>
<p>RF.4 Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read grade-level text with purpose and understanding.</p> <p>b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>	<p>3.1.3 Read aloud grade-level-appropriate literary and informational texts fluently and accurately and with appropriate timing, change in voice, and expression. 1.1.12 Use phonic and context clues as self-correction strategies when reading.</p>	<p>The INCC added the element of "<i>with purpose and understanding.</i>"</p> <p>This expectation from IAS continues throughout the elementary grades in the INCC.</p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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>3.5.6 Write persuasive pieces that ask for an action or response.</p> <p>3.5.7 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of what is read.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The INCC and the IAS are a poor match. The INCC requires students to write opinion pieces and provides more rigorous expectations regarding composition. In particular, students should use linking words and phrases to connect opinion and reasons.</p>
<p>W.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>3.5.2 Write descriptive pieces about people, places, things, or experiences that:</p> <ul style="list-style-type: none"> <li>• develop a unified main idea.</li> <li>• use details to support the main idea.</li> </ul> <p>3.5.7 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of what is read.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The INCC provides more rigorous expectations for the development of informative/explanatory pieces. The IAS are subsumed by the INCC.</p>

**Grade 3 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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>3.5.1 Write narratives that:</p> <ul style="list-style-type: none"> <li>• provide a context within which an action takes place.</li> <li>• include details to develop the plot.</li> </ul>	<p>The INCC provides more rigorous expectations for the development of narrative pieces. The IAS are subsumed by the INCC.</p>
<p>W.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>3.4.3 Create single paragraphs with topic sentences and simple supporting facts and details.</p> <p>3.4.9 Organize related ideas together within a paragraph to maintain a consistent focus.</p>	<p>The INCC requires that all writing is clearly developed and organized, including those pieces longer than one paragraph.</p>
<p>W.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.</p>	<p>3.4.2 Discuss ideas for writing, use diagrams and charts to develop ideas, and make a list or notebook of ideas.</p> <p>3.4.6 Review, evaluate, and revise writing for meaning and clarity.</p> <p>3.4.7 Proofread one’s own writing, as well as that of others, using an editing checklist or list of rules.</p> <p>3.4.8 Revise writing for others to read, improving the focus and progression of ideas.</p>	<p>The IAS provide specific expectations for students that meet the requirements of the INCC.</p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
W.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.	3.4.5 Use a computer to draft, revise, and publish writing.	The INCC leverages technology as a collaboration and publishing tool.
W.7 Conduct short research projects that build knowledge about a topic.	3.5.8 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that: <ul style="list-style-type: none"> <li>• uses a variety of sources (books, technology, pictures, charts, tables of contents, diagrams) and documents sources (titles and authors).</li> <li>• organizes information by categorizing it into more than one category (such as living and nonliving, hot and cold) or includes information gained through observation.</li> </ul>	The INCC is a component of the IAS. Please see W.8 to understand the full range of research skills students should develop.

**Grade 3 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Writing Standards</b>	<b>Writing: Processes and Features Writing: Applications</b>	<b>Instructional Transition Guidance</b>
<p>W.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>	<p>3.5.8 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses a variety of sources (books, technology, pictures, charts, tables of contents, diagrams) and documents sources (titles and authors).</li> <li>• organizes information by categorizing it into more than one category (such as living and nonliving, hot and cold) or includes information gained through observation.</li> </ul>	<p>The INCC is a component of the IAS. Please see W.7 to understand the full range of research skills students should develop.</p>
<p>W.9 (Begins in grade 4)</p>		
<p>W.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>3.5.5 Write for different purposes and to a specific audience or person.</p>	<p>The INCC emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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>3.6.5 Identify and correctly use pronouns (it, him, her), adjectives (brown eyes, two younger sisters), compound nouns (summertime, snowflakes), and articles (a, an, the) in writing.</p> <p>3.6.4 Identify and use past (he danced), present (he dances), and future (he will dance) verb tenses properly in writing.</p> <p>3.6.2 Write correctly complete sentences of statement, command, question, or exclamation, with final punctuation.</p>	<p>The INCC requires several <b>NEW</b> skills at this grade level. Components of this INCC are found in IAS 4.6.2, 4.6.4, 5.6.8, 5.6.3, 5.6.4, and 6.6.2, expecting more rigor at an earlier developmental level.</p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Common Core Standards	Indiana Academic Standards	
Language Standards	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b> <b>Writing: English Language Conventions</b>	Instructional Transition Guidance
<p>L.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., 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>	<p>3.6.6 Use commas in dates (August 15, 2001), locations (Fort Wayne, Indiana), and addresses (431 Coral Way, Miami, FL), and for items in a series (football, basketball, soccer, and tennis).</p> <p>3.6.8 Spell correctly one-syllable words that have blends (walk, play, blend), contractions (isn't, can't), compounds, common spelling patterns (qu-; changing win to winning; changing the ending of a word from -y to -ies to make a plural, such as cherry/cherries), and common homophones (words that sound the same but have different spellings, such as hair/hare).</p> <p>3.6.7 Capitalize correctly geographical names, holidays, historical periods, and special events (We always celebrate the Fourth of July by gathering at Mounds State Park in Anderson, Indiana.)</p>	<p>The INCC and the IAS form a good match. There are variations regarding the specialization of capitalization. IAS 4.6.5 addresses the use of possessives.</p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Language Standards	Reading: Word Recognition, Fluency, and Writing: English Language Conventions	
<p>L.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Choose words and phrases for effect.</p> <p>b. Recognize and observe differences between the conventions of spoken and written standard English.</p>	<p>3.5.4 Use varied word choices to make writing interesting.</p>	<p>The INCC requires students to recognize and observe differences between the conventions of spoken and written Standard English. Please note that the IAS is from Standard 5 - Writing: Applications.</p>
<p>L.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>3.1.6 Use sentence and word context to find the meaning of unknown words.</p> <p>3.1.7 Use a dictionary to learn the meaning and pronunciation of unknown words.</p> <p>3.1.8 Use knowledge of prefixes (word parts added at the beginning of words such as un-, pre-) and suffixes (word parts added at the end of words such as -er, -ful, -less) to determine the meaning of words.</p> <p>3.1.9 Identify more difficult multiple-meaning words (such as puzzle or fire).</p>	<p>The INCC and the IAS are an excellent match.</p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Language Standards	Reading: Word Recognition, Fluency, and Writing: English Language Conventions	
<p>L.5 Demonstrate understanding of figurative language, 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> <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>This INCC Standard is <b>NEW!</b></p>
<p>L.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>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development.</p>	<p>While the expectations of this INCC are not new, there is a more explicit requirement that students acquire and use grade-appropriate academic and domain-specific words and phrases.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
<p>SL.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> <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 (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).</p> <p>c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</p> <p>d. Explain their own ideas and understanding in light of the discussion.</p>		<p>Since the IAS for Listening and Speaking are not currently assessed on ISTEP+ assessments, educators and students should implement the INCC for Speaking and Listening as soon as possible.</p>
<p>SL.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>SL.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p>		

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
<p>SL.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.</p>		<p>The INCC for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competency in multimedia content integration.</p>
<p>SL.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.</p>		
<p>SL.6 Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.</p>		

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

**Grade 3 English Language Arts  
Standards Correlation: IAS to INCC**

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**Grade 4 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Informational Text	Reading: Comprehension and Analysis of Nonfiction and Informational Text	
RI.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	4.2.3 Draw conclusions or make and confirm predictions about text by using prior knowledge and ideas presented in the text itself, including illustrations, titles, topic sentences, important words, foreshadowing clues (clues that indicate what might happen next), and direct quotations.	The INCC requires students to explain what the text says explicitly and to draw inferences from the text. The IAS provides specific strategies that students may use to help them meet the expectation of the INCC.
RI.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.	4.2.9 Recognize main ideas and supporting details presented in expository (informational texts). 4.5.4 Write summaries that contain the main ideas of the reading selection and the most significant details.	The INCC requires students to be able to summarize the text.
RI.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.		This INCC Standard is <b>NEW!</b>
RI.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.	4.1.7 Use context to determine the meaning of unknown words.	The INCC provides a general expectation regarding vocabulary acquisition. The IAS provides a specific strategy to meet this expectation.
RI.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.	4.2.1 Use the organization of informational text to strengthen comprehension.	While both the INCC and the IAS attend to the organizational structure of a text, the INCC requires students to describe the overall structure of events, ideas, concepts, or information in a text or part of a text.

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

RI.6 Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.		This INCC Standard is <b>NEW!</b>
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**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	4.2.3 Draw conclusions or make and confirm predictions about text by using prior knowledge and ideas presented in the text itself, including illustrations, titles, topic sentences, important words, foreshadowing clues (clues that indicate what might happen next), and direct quotations.	The INCC requires students to explain how visual, oral, or quantitative information contributes to the understanding of a text.
RI.8 Explain how an author uses reasons and evidence to support particular points in a text.	4.2.9 Recognize main ideas and supporting details presented in expository (informational texts).	The INCC moves beyond recognition of main ideas and supporting details. Students should explain how the author uses reasons and evidence to support ideas.
RI.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	4.2.5 Compare and contrast information on the same topic after reading several passages or articles.	The INCC requires students to integrate information from two texts rather than compare and contrast. In both cases, students are analyzing two texts.
RI.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.	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity.  <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.		This INCC Standard is <b>NEW!</b> (in the context of literature)
RL.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.	4.3.6 Determine the theme.	The INCC requires the summarization of the text.
RL.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).	4.3.3 Use knowledge of the situation, setting, and a character's traits, motivations, and feelings to determine the causes for that character's actions.	The INCC is concerned with in-depth description of a character, setting, or event by using specific details in the text. Students would likely need to evaluate a text for similar information to determine the causes for a character's actions.
RL.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).		This INCC Standard is <b>NEW!</b>
RL.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.		This INCC Standard is <b>NEW!</b>
RL.6 Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	4.3.7 Identify the narrator in a selection and tell whether the narrator or speaker is involved in the story.	The INCC requires students to compare and contrast the point of view from different stories.

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Literature</b>	<b>Reading: Comprehension and Analysis of Literary Text</b>	
RL.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 descriptions and directions in the text.		This INCC Standard is <b>NEW!</b>
RL.8 (Not applicable to literature)		
RL.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.	4.3.4 Compare and contrast tales from different cultures by tracing the adventures of one character type. Tell why there are similar tales in different cultures.	The INCC extends beyond stories, myths, tales, and traditional literature about one character type. Similar themes and topics across cultures should be compared and contrasted.
RL.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	Standard 3 - Reading: Comprehension and Analysis of Literary Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity. <a href="#">Please click here to view Appendix A for more information on text complexity.</a>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Foundational Skills for Reading	Reading: Word Recognition, Fluency, and Vocabulary Development	
<p>RF.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>Standard 1 Students understand the basic features of words. They see letter patterns and know how to translate them into spoken language by using phonics (an understanding of the different letters that make different sounds), syllables, word parts (un-, re-, -est, -ful), and context (the meaning of the text around a word). They apply this knowledge to achieve fluent (smooth and clear) oral and silent reading.</p>	<p>The INCC and the IAS are an excellent match.</p>
<p>RF.4 Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read grade-level text with purpose and understanding.</p> <p>b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>	<p>4.1.1 Read aloud grade-level-appropriate literary and informational texts with fluency and accuracy and with appropriate timing, changes in voice, and expression.</p> <p>1.1.12 Use phonic and context clues as self-correction strategies when reading.</p>	<p>The INCC added the element of "<i>with purpose and understanding</i>" and the genre of poetry.</p> <p>The expectation for self-correction from IAS continues throughout the elementary grades in the INCC.</p>

**Grade 4 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Writing Standards</b>	<b>Writing: Processes and Features</b> <b>Writing: Applications</b>	<b>Instructional Transition Guidance</b>
<p>W.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>4.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of a literary work.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The INCC provides a more rigorous expectation for the development of an opinion piece. The expectations of the IAS are subsumed by the INCC.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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 information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</p> <p>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</p> <p>c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).</p> <p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p> <p>e. Provide a concluding statement or section related to the information or explanation presented.</p>	<p>4.4.3 Write informational pieces with multiple paragraphs that:</p> <ul style="list-style-type: none"> <li>• provide an introductory paragraph.</li> <li>• establish and support a central idea with a topic sentence at or near the beginning of the first paragraph.</li> <li>• include supporting paragraphs with simple facts, details, and explanations.</li> <li>• present important ideas or events in sequence or in chronological order.</li> <li>• provide details and transitions to link paragraphs.</li> <li>• conclude with a paragraph that summarizes the points.</li> <li>• use correct indentation at the beginning of paragraphs.</li> </ul> <p>4.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of a literary work.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The INCC and the IAS are an excellent match. The INCC does not specify a particular text structure (e.g., sequential or chronological order), does require students to use precise language and domain-specific vocabulary to inform about or explain the topic (part d).</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</p> <p>b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.</p> <p>c. Use a variety of transitional words and phrases to manage the sequence of events.</p> <p>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</p> <p>e. Provide a conclusion that follows from the narrated experiences or events.</p>	<p>4.5.1 Write narratives that:</p> <ul style="list-style-type: none"> <li>• include ideas, observations, or memories of an event or experience.</li> <li>• provide a context to allow the reader to imagine the world of the event or experience.</li> <li>• use concrete sensory details.</li> </ul>	<p>The INCC provides a more rigorous expectation for the development of a narrative piece. The expectations of the IAS are subsumed by the INCC.</p>
<p>W.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>4.4.2 Select a focus, an organizational structure, and a point of view based upon purpose, audience, length, and format requirements for a piece of writing.</p> <p>4.4.4 Use logical organizational structures for providing information in writing, such as chronological order, cause and effect, similarity and difference, and posing and answering a question.</p>	<p>The INCC and the IAS are an excellent match. IAS 4.4.4 provides organizational structures that address specific purposes, all of which are appropriate within the expectation of the INCC.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.</p>	<p>4.4.1 Discuss ideas for writing. Find ideas for writing in conversations with others and in books, magazines, newspapers, school textbooks, or on the Internet. Keep a list or notebook of ideas.</p> <p>4.4.10 Review, evaluate, and revise writing for meaning and clarity.</p> <p>4.4.11 Proofread one’s own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of frequent errors.</p> <p>4.4.12 Revise writing by combining and moving sentences and paragraphs to improve the focus and progression of ideas.</p>	<p>The IAS provide specific student performances that meet the expectation of the INCC.</p>
<p>W.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.</p>	<p>4.4.9 Use a computer to draft, revise, and publish writing, demonstrating basic keyboarding skills and familiarity with common computer terminology.</p>	<p>The INCC leverages technology as a collaboration and publishing tool.</p>

**Grade 4 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.</p>	<p>4.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• includes information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing it into multiple categories (such as solid, liquid, and gas or reduce, reuse, and recycle) or includes information gained through observation.</li> </ul>	<p>The INCC is a component of the IAS. Please see W.8 and W.9 to understand the full range of research skills students should develop.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Writing Standards</b>	<b>Writing: Processes and Features Writing: Applications</b>	<b>Instructional Transition Guidance</b>
<p>W.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>4.4.5 Quote or paraphrase information sources, citing them appropriately.</p> <p>4.4.7 Use multiple reference materials and online information (the Internet) as aids to writing.</p> <p>4.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• includes information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing it into multiple categories (such as solid, liquid, and gas or reduce, reuse, and recycle) or includes information gained through observation.</li> </ul>	<p>The INCC is a component of the IAS. Please see W.7 and W.9 to understand the full range of research skills students should develop.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
<b>Writing Standards</b>	<b>Writing: Processes and Features Writing: Applications</b>	<b>Instructional Transition Guidance</b>
<p>W.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>4.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• includes information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing it into multiple categories (such as solid, liquid, and gas or reduce, reuse, and recycle) or includes information gained through observation.</li> </ul>	<p>The INCC is a component of the IAS. Please see W.7 and W.8 to understand the full range of research skills students should develop. Also, the INCC integrates reading and writing tasks, insisting on the thoughtful analysis and evaluation of literary and informational texts as an important part of the research process.</p>
<p>W.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>4.5.6 Write for different purposes (information, persuasion, description) and to a specific audience or person.</p>	<p>The INCC emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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>	<p>4.6.2 Use simple sentences (Dr. Vincent Stone is my dentist.) and compound sentences (His assistant cleans my teeth, and Dr. Stone checks for cavities.) in writing.</p> <p>4.6.4 Identify and use in writing regular (live/lived, shout/shouted) and irregular verbs (swim/swam, ride/rode, hit/hit), adverbs (constantly, quickly), and prepositions (through, beyond, between).</p>	<p>The INCC requires an increase in the rigor of language concepts that students are expected to master at this grade level. In particular, the following concepts are <b>NEW</b>: relative pronouns, the progressive verb tense, modal auxiliaries, the conventional ordering of adjectives, and the distinction between frequently confused words (e.g., to, too, two; there, their).</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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>4.6.5 Use parentheses to explain something that is not considered of primary importance to the sentence, commas in direct quotations, apostrophes to show possession, and apostrophes in contractions.</p> <p>4.6.7 Capitalize names of magazines, newspapers, works of art, musical compositions, organizations, and the first word in quotations, when appropriate.</p> <p>4.6.8 Spell correctly roots (bases of words, such as unnecessary, cowardly), inflections (words like care/careful/caring), words with more than one acceptable spelling (like advisor/adviser), suffixes and prefixes (-ly, -ness, mis-, un-), and syllables.</p>	<p>The INCC also requires students to use commas to indicate coordinating conjunctions in compound sentences.</p>
<p>L.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Choose words and phrases to convey ideas precisely.</p> <p>b. Choose punctuation for effect.</p> <p>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>	<p>4.6.3 Create interesting sentences by using words that describe, explain, or provide additional details and connections, such as verbs, adjectives, adverbs, appositives, participial phrases, prepositional phrases, and conjunctions.</p>	<p>The IAS provides guidance on fulfilling the expectation of part a of the INCC. Students should also use punctuation for effect. Also, the concept of differentiating between situations requiring formal and informal discourse is <b>NEW!</b></p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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> <p>a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.</p> <p>b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).</p> <p>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>	<p>4.1.3 Use knowledge of root words (nation, national, nationality) to determine the meaning of unknown words within a passage.</p> <p>4.1.4 Use common roots (meter = measure) and word parts (therm = heat) derived from Greek and Latin to analyze the meaning of complex words (thermometer).</p> <p>4.1.5 Use a thesaurus to find related words and ideas.</p> <p>4.1.6 Distinguish and interpret words with multiple meanings (quarters) by using context clues.</p> <p>4.1.7 Use context to determine the meaning of unknown words.</p>	<p>The INCC and the IAS are a good match. Students should also consult reference materials to find the pronunciation and determine or clarify the precise meaning of key words and phrases.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Language Standards	Reading: Word Recognition, Fluency, and Writing: English Language Conventions	
<p>L.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>	<p>4.1.2 Apply knowledge of synonyms (words with the same meaning), antonyms (words with opposite meanings), homographs (words that are spelled the same but have different meanings), and idioms (expressions that cannot be understood just by knowing the meanings of the words in the expression, such as couch potato) to determine the meaning of words and phrases.</p> <p>4.3.5 Define figurative language, such as similes, metaphors, hyperbole, or personification, and identify its use in literary works.</p> <ul style="list-style-type: none"> <li>• Simile: a comparison that uses like or as</li> <li>• Metaphor: an implied comparison</li> <li>• Hyperbole: an exaggeration for effect</li> <li>• Personification: a description that represents a thing as a person</li> </ul>	<p>The INCC requires students to understand nuances in word meanings. Also, the INCC includes the terms simile, metaphor, adage, and proverb.</p>
<p>L.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).</p>	<p>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this INCC are not new, there is a more explicit requirement that students acquire grade-appropriate academic and domain-specific words and phrases.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	Instructional Transition Guidance
<p>SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 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 to clarify or follow up on information, and make comments that contribute to the discussion and 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>SL.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p>		
<p>SL.3 Identify the reasons and evidence a speaker provides to support particular points.</p>		<p>Since the IAS for Listening and Speaking are not currently assessed on ISTEP+ assessments, educators and students should implement the INCC for Speaking and Listening as soon as possible.</p>

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
<p>SL.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>The INCC for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competency in multimedia content integration.</p>
<p>SL.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.</p>		
<p>SL.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.</p>		

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

**Grade 4 Engl. Language Arts  
Standards Correlation: IAS to INCC**

**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

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**Grade 4 English Language Arts  
Standards Correlation: IAS to INCC**

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Informational Text	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	5.2.3 Recognize main ideas presented in texts, identifying and assessing evidence that supports those ideas.  5.2.4 Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.	The INCC and the IAS are an excellent match. The INCC is a more succinct expression of the two IAS.
RI.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	5.2.3 Recognize main ideas presented in texts, identifying and assessing evidence that supports those ideas.  5.5.7 Write summaries that contain the main ideas of the reading selection and the most significant details.	The INCC requires students to determine two or more main ideas of a text. Please note that one of the IAS is from Standard 5 - Writing: Applications.
RI.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.		This INCC Standard is <b>NEW!</b>
RI.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.	5.1.6 Understand unknown words by using word, sentence, and paragraph clues to determine meaning.	The IAS indicates one way in which students must determine meaning of words and phrases in text.
RI.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.	5.2.2 Analyze text that is organized in sequential or chronological order.	The INCC is significantly more rigorous than the IAS. Students must compare and contrast the structure of events, ideas, concepts, or information in two or more texts.

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.		This INCC Standard is <b>NEW!</b>
RI.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.		This INCC Standard is <b>NEW!</b>
RI.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).	5.2.3 Recognize main ideas presented in texts, identifying and assessing evidence that supports those ideas.	The INCC also requires students to explain how an author uses reason and evidence to support ideas.
RI.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.	5.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that: <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing and sequencing.</li> </ul>	The INCC is a logical expectation within the research process described in the IAS. Please note that the IAS is from Standard 5 - Writing: Applications.

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.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	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	<p>While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity.</p> <p>Please <a href="#">click here to view Appendix A for more information on text complexity.</a></p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
RL.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.		This INCC Standard is <b>NEW!</b> (in the context of literature)
RL.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.	5.3.4 Understand that theme refers to the central idea or meaning of a selection and recognize themes, whether they are implied or stated directly.  5.3.8 Identify the speaker or narrator in a selection and tell whether the speaker or narrator is a character involved in the story.  5.5.7 Write summaries that contain the main ideas of the reading selection and the most significant details.	The INCC requires students to determine how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic. Students should also summarize the text.
RL.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).	5.3.3 Contrast the actions, motives, and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.	The INCC includes settings and events as well as the ability to compare.
RL.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.	5.3.5 Describe the function and effect of common literary devices, such as imagery, metaphor, and symbolism.	The IAS includes imagery and symbolism.
RL.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.		This INCC is <b>NEW!</b>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	Instructional Transition Guidance
RL.6 Describe how a narrator’s or speaker’s point of view influences how events are described.	5.3.8 Identify the speaker or narrator in a selection and tell whether the speaker or narrator is a character involved in the story.	The INCC extends the expectation found in the IAS.
RL.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).		This INCC Standard is <b>NEW!</b>
RL.8 (Not applicable to literature)		
RL.9 Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.		This INCC Standard is <b>NEW!</b>
RL.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	Standard 3 - Reading: Comprehension and Analysis of Literary Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity. <a href="#">Please click here to view Appendix A for more information on text complexity.</a>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Foundational Skills for Reading	Reading: Word Recognition, Fluency, and Vocabulary Development	
<p>RF.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>This INCC Standard is <b>NEW!</b></p>
<p>RF.4 Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read grade-level text with purpose and understanding.</p> <p>b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>	<p>5.1.1 Read aloud grade-level-appropriate narrative text (stories) and expository text (information) fluently and accurately and with appropriate timing, changes in voice, and expression.</p> <p>1.1.12 Use phonic and context clues as self-correction strategies when reading.</p>	<p>The INCC added the element of "<i>with purpose and understanding</i>" and the genre of poetry.</p> <p>This expectation from IAS continues throughout the elementary grades in the INCC.</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.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 ideas are logically grouped to support the writer’s purpose.</p> <p>b. Provide logically ordered reasons that are supported by facts and details.</p> <p>c. Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).</p> <p>d. Provide a concluding statement or section related to the opinion presented.</p>	<p>5.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of a literary work.</li> <li>• support statements with evidence from the text.</li> <li>• develop interpretations that exhibit careful reading and understanding.</li> </ul>	<p>The INCC provides a more rigorous expectation for the development of an opinion piece. The expectations of the IAS are subsumed by the INCC.</p>

**Grade 5 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p>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.</p> <p>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</p> <p>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).</p> <p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p> <p>e. Provide a concluding statement or section related to the information or explanation presented.</p>	<p>5.4.3 Write informational pieces with multiple paragraphs that:</p> <ul style="list-style-type: none"> <li>• present important ideas or events in sequence or in chronological order.</li> <li>• provide details and transitions to link paragraphs.</li> <li>• offer a concluding paragraph that summarizes important ideas and details.</li> </ul> <p>5.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of a literary work.</li> <li>• support statements with evidence from the text.</li> <li>• develop interpretations that exhibit careful reading and understanding.</li> </ul>	<p>The INCC provides a more rigorous expectation for the development of an informative/explanatory piece. The expectations of the IAS are subsumed by the INCC.</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</p> <p>b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.</p> <p>c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.</p> <p>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</p> <p>e. Provide a conclusion that follows from the narrated experiences or events.</p>	<p>5.4.2 Write stories with multiple paragraphs that develop a situation or plot, describe the setting, and include an ending.</p> <p>5.5.1 Write narratives that:</p> <ul style="list-style-type: none"> <li>• establish a plot, point of view, setting, and conflict.</li> <li>• show, rather than tell, the events of the story.</li> </ul>	<p>The INCC provides a more rigorous expectation for the development of a narrative piece. The expectations of the IAS are subsumed by the INCC.</p>
<p>W.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.</p>	<p>5.4.11 Use logical organizational structures for providing information in writing, such as chronological order, cause and effect, similarity and difference, and stating and supporting a hypothesis with data.</p>	<p>The IAS specifies organizational structures. The INCC emphasizes that a piece's development and organization should be appropriate to task, purpose, and audience.</p>

**Grade 5 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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.</p>	<p>5.4.1 Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.</p> <p>5.4.8 Review, evaluate, and revise writing for meaning and clarity.</p> <p>5.4.9 Proofread one’s own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of specific errors.</p> <p>5.4.10 Edit and revise writing to improve meaning and focus through adding, deleting, combining, clarifying, and rearranging words and sentences.</p>	<p>The IAS provide specific student performances that meet the expectation of the INCC.</p>
<p>W.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.</p>	<p>5.4.6 Create simple documents using a computer and employing organizational features, such as passwords, entry and pull-down menus, word searches, the thesaurus, and spell checks.</p>	<p>The INCC leverages technology as a collaboration and publishing tool.</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p>	<p>5.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing and sequencing.</li> </ul>	<p>The INCC is a component of the IAS. Please see W.8 and W.9 to understand the full range of research skills students should develop.</p>
<p>W.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>5.4.4 Use organizational features of printed text, such as citations, endnotes, and bibliographic references, to locate relevant information.</p> <p>5.4.5 Use note-taking skills when completing research for writing.</p> <p>5.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing and sequencing.</li> </ul>	<p>The INCC is a component of the IAS. The INCC also requires students to paraphrase or summarize information.</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>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]”).</p> <p>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>	<p>5.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• organizes information by categorizing and sequencing.</li> </ul>	<p>The INCC is a component of the IAS. Please see W.7 and W.8 to understand the full range of research skills students should develop. Also, the INCC integrates reading and writing tasks, insisting on the thoughtful analysis and evaluation of literary and informational texts as important parts of the research process.</p>
<p>W.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>5.5.6 Write for different purposes (information, persuasion, description) and to a specific audience or person, adjusting tone and style as appropriate.</p>	<p>The INCC emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.</p> <p>b. Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses.</p> <p>c. Use verb tense to convey various times, sequences, states, and conditions.</p> <p>d. Recognize and correct inappropriate shifts in verb tense.</p> <p>e. Use correlative conjunctions (e.g., either/or, neither/nor).</p>	<p>5.6.3 Identify and correctly use appropriate tense (present, past, present participle, past participle) for verbs that are often misused (lie/lay, sit/set, rise/raise).</p>	<p>The majority of skills in this INCC Standard are <b>NEW</b> for this grade level. Part b is found in IAS 6.6.2. IAS 5.6.3 addresses inappropriate shifts in verb tense (albeit for verbs that are often misused).</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use punctuation to separate items in a series.</p> <p>b. Use a comma to separate an introductory element from the rest of the sentence.</p> <p>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?).</p> <p>d. Use underlining, quotation marks, or italics to indicate titles of works.</p> <p>e. Spell grade-appropriate words correctly, consulting references as needed.</p>		<p>This INCC Standard is NEW!</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Language Standards	Reading: Word Recognition, Fluency, and Writing: English Language Conventions	
<p>L.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.</p> <p>b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.</p>		<p>This INCC Standard is <b>NEW</b> (in the context of this grade level). Part a is currently referenced in IAS 8.6.1 - Use correct and varied sentence types (simple, compound, complex, and compound-complex) and sentence openings to present a lively and effective personal style. Part b of this INCC is not currently included in the IAS.</p>
<p>L.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> <p>a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.</p> <p>b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).</p> <p>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>	<p>5.4.7 Use a thesaurus to identify alternative word choices and meanings.</p> <p>5.1.2 Use word origins to determine the meaning of unknown words.</p> <p>5.1.6 Understand unknown words by using word, sentence, and paragraph clues to determine meaning.</p> <p>5.1.4 Know less common roots (graph = writing, logos = the study of) and word parts (auto = self, bio = life) from Greek and Latin and use this knowledge to analyze the meaning of complex words (autograph, autobiography, biography, biology).</p>	<p>The INCC and the IAS form a good match. Context clues and word origins (e.g., common, grade-appropriate Greek and Latin affixes and roots) are addressed. Students should also consult reference materials to find the pronunciation and determine or clarify the precise meaning of key words and phrases.</p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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>5.1.3 Understand and explain frequently used synonyms (words with the same meaning), antonyms (words with opposite meanings), and homographs (words that are spelled the same but have different meanings).</p> <p>5.1.5 Understand and explain the figurative use of words in similes (comparisons that use like or as: The stars were like a million diamonds in the sky.) and metaphors (implied comparisons: The stars were brilliant diamonds in the night sky.).</p>	<p>The INCC references idioms, adages, and proverbs.</p>
<p>L.6 Acquire and use accurately grade-appropriate 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>This INCC Standard is <b>NEW!</b></p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Grade 5 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
<p>SL.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>		<p>Since the IAS for Listening and Speaking are not currently assessed on ISTEP+ assessments, educators and students should implement the INCC for Speaking and Listening as soon as possible.</p>
<p>SL.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p>		
<p>SL.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.</p>		

**Grade 5 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana Common Core Standards	Indiana Academic Standards	
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	Instructional Transition Guidance
<p>SL.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>		<p>The INCC for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competencies in both rhetoric and multimedia content integration.</p>
<p>SL.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>		
<p>SL.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.</p>		

**Grade 6 English Language Arts  
Instructional Transition Guidance**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	6.2.6 Determine the appropriateness of the evidence presented for an author's conclusions and evaluate whether the author adequately supports inferences. 6.2.7 Make reasonable statements and conclusions about a text, supporting them with evidence from the text.	The INCC Standard is a more succinct expression of two IAS.
RI.2 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 judgements.	6.5.8 Write summaries that contain the main ideas of the reading selection and the most significant details.	This IAS Standard attends to the summary portion of this INCC Standard.
RI.3 Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	6.2.8 Identify how an author's choice of words, examples, and reasons are used to persuade the reader of something.	The INCC Standard requires analysis instead of identification. In addition, there is an emphasis on how concepts are introduced, illustrated, and elaborated in a text rather than simply used to persuade.
RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	6.1.2 Identify and interpret figurative language (including similes and metaphors) and words with multiple meanings. 6.1.4 Understand unknown words in informational texts by using word, sentence, and paragraph clues to determine meaning.	The INCC Standard requires students to determine the figurative, connotative, and technical meanings of words.
RI.5 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.		This INCC Standard is <b>NEW!</b>

**Grade 6 Engl. Language Arts  
Instructional Transition Guidance**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.6 Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.		This INCC Standard is <b>NEW!</b>
RI.7 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.		This INCC Standard is <b>NEW!</b>
RI.8 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.	6.2.6 Determine the appropriateness of the evidence presented for an author's conclusions and evaluate whether the author adequately supports inferences.	The INCC Standard requires students to trace the argument and make distinctions between claims supported and claims not supported.
RI.9 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).		This INCC Standard is <b>NEW!</b>
RI.10 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.	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this INCC Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity.  <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
<p>RL.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>		<p>This INCC Standard is <b>NEW!</b></p>
<p>RL.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>6.3.6 Identify and analyze features of themes conveyed through characters, actions, and images. 6.5.8 Write summaries that contain the main ideas of the reading selection and the most significant details.</p>	<p>The INCC and IAS standards are an excellent match.</p>
<p>RL.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>6.3.2 Analyze the effect of the qualities of the character on the plot and the resolution of the conflict. 6.3.9 Identify the main problem or conflict of the plot and explain how it is resolved.</p>	<p>The INCC attends to the unfolding of a story's or drama's series of events and notes how characters respond and change. In other words, how the plot affects characters is as significant as how characters affect the plot.</p>
<p>RL.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>6.3.4 Define how tone or meaning are conveyed in poetry through word choice, figurative language, sentence structure, line length, punctuation, rhythm, alliteration, and rhyme. 6.3.7 Explain the effects of common literary devices, such as symbolism, imagery, or metaphor, in a variety of fictional and nonfictional texts.</p>	<p>The INCC Standard and IAS are an excellent match.</p>
<p>RL.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>This INCC Standard is <b>NEW!</b></p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

<p>RL.6 Explain how an author develops the point of view of the narrator or speaker in a text.</p>	<p>6.3.5 Identify the speaker and recognize the difference between first-person (the narrator tells the story from the "I" perspective) and third-person (the narrator tells the story from an outside perspective) narration.</p>	
<p>RL.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>This INCC Standard is <b>NEW!</b></p>
<p>RL.8 (Not applicable to literature)</p>		
<p>RL.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>This INCC Standard is <b>NEW!</b></p>
<p>RL.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>Standard 3 - Reading: Comprehension and Analysis of Literary Text</p>	<p>While this INCC Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity.</p> <p><u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u></p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

INCC Standards Writing	Indiana Academic Standards Writing: Processes and Features Writing: Applications	Indiana Instructional Transition Guidance
W.1 Write arguments to support claims with clear reasons and relevant evidence.	6.4.4 Use a variety of effective organizational patterns, including comparison and contrast, organization by categories, and arrangement by order of importance or climactic order.	The INCC Standard and IAS are an excellent match. Please consider the following: (a) the INCC Standard does not use the term thesis; (b) the INCC Standard (part c) emphasizes how words, phrases, and clauses can be leveraged to clarify relationships among ideas and reasons; and (c) the INCC Standard requires students to attend to the establishment of a formal style.
<p>a. Introduce claim(s) and organize the reasons and evidence clearly.</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>6.5.4 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• develop an interpretation that shows careful reading, understanding, and insight.</li> <li>• organize the interpretation around several clear ideas.</li> <li>• support statements with evidence from the text.</li> </ul> <p>6.5.5 Write persuasive compositions that:</p> <ul style="list-style-type: none"> <li>• state a clear position on a proposition or proposal.</li> <li>• support the position with organized and relevant evidence and effective emotional appeals.</li> <li>• anticipate and address reader concerns and counterarguments.</li> </ul>	

**Grade 6 English Language Arts  
Instructional Transition Guidance**

<p style="text-align: center;"><b>INCC Standards Writing Standards</b></p>	<p style="text-align: center;"><b>Indiana Academic Standards Writing: Processes and Features Writing: Applications</b></p>	<p style="text-align: center;"><b>Transition Guidance</b></p>
<p>W.2 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>6.4.4 Use a variety of effective organizational patterns, including comparison and contrast, organization by categories, and arrangement by order of importance or climactic order.</p> <p>6.4.3 Write informational pieces of several paragraphs that:</p> <ul style="list-style-type: none"> <li>• engage the interest of the reader.</li> <li>• state a clear purpose.</li> <li>• develop the topic with supporting details and precise language.</li> <li>• conclude with a detailed summary linked to the purpose of the composition.</li> </ul> <p>6.5.2 Write descriptions, explanations, comparison and contrast papers, and problem and solution essays that:</p> <ul style="list-style-type: none"> <li>• state the thesis (position on the topic) or purpose.</li> <li>• explain the situation.</li> <li>• organize the composition clearly.</li> <li>• offer evidence to support arguments and</li> </ul> <p>6.5.4 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• develop an interpretation that shows careful reading, understanding, and insight.</li> <li>• organize the interpretation around several clear ideas.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The INCC Standard provides greater detail about the types of skills that should be demonstrated in an informative/explanatory text. The expectations found in IAS are embedded in the language of the INCC Standard.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

<p style="text-align: center;"><b>INCC Standards Writing Standards</b></p>	<p style="text-align: center;"><b>Indiana Academic Standards Writing: Processes and Features Writing: Applications</b></p>	<p style="text-align: center;"><b>Instructional Transition Guidance</b></p>
<p>W.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 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>6.5.1 Write narratives that:</p> <ul style="list-style-type: none"> <li>• establish and develop a plot and setting and present a point of view that is appropriate to the stories.</li> <li>• include sensory details and clear language to develop plot and character.</li> <li>• use a range of narrative devices, such as dialogue or suspense.</li> </ul>	<p>The INCC Standard provides greater detail about the types of skills that should be demonstrated in a narrative text. The expectations found in IAS are embedded in the language of the INCC Standard.</p>

**Grade 6 Engl. Language Arts  
Instructional Transition Guidance**

<p style="text-align: center;"><b>INCC Standards Writing Standards</b></p>	<p style="text-align: center;"><b>Indiana Academic Standards Writing: Processes and Features Writing: Applications</b></p>	<p style="text-align: center;"><b>Instructional Transition Guidance</b></p>
<p>W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and</p>	<p>6.4.2 Choose the form of writing that best suits the intended purpose.</p>	<p>The INCC Standard and IAS are an excellent match. The INCC Standard attends to the fact that composition decisions should take into account the task, purpose, and audience.</p>
<p>W.5 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.</p>	<p>6.4.1 Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.</p> <p>6.4.8 Review, evaluate, and revise writing for meaning and clarity.</p> <p>6.4.9 Edit and proofread one’s own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of frequent errors.</p> <p>6.4.10 Revise writing to improve the organization and consistency of ideas within and between paragraphs.</p>	<p>The INCC Standard is more general than the language found in IAS, but the overall match is excellent.</p>
<p>W.6 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>6.4.7 Use a computer to compose documents with appropriate formatting by using word-processing skills and principles of design, including margins, tabs, spacing, columns, and page orientation.</p>	<p>The INCC Standard leverages technology as a collaboration and publishing tool.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

<p style="text-align: center;"><b>INCC Standards Writing Standards</b></p>	<p style="text-align: center;"><b>Indiana Academic Standards Writing: Processes and Features Writing: Applications</b></p>	<p style="text-align: center;"><b>Instructional Transition Guidance</b></p>
<p>W.7 Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.</p>	<p>6.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC Standard is a component of the research expectations found in the IAS. Please note that the INCC Standards use 6.W.7, 6.W.8, and 6.W.9 to fully articulate the research concepts and skills that students should develop.</p>

**Grade 6 Engl. Language Arts  
Instructional Transition Guidance**

<p style="text-align: center;"><b>INCC Standards Writing Standards</b></p>	<p style="text-align: center;"><b>Indiana Academic Standards Writing: Processes and Features Writing: Applications</b></p>	<p style="text-align: center;"><b>Instructional Transition Guidance</b></p>
<p>W.8 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>6.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul> <p>6.4.5 Use note-taking skills when completing research for writing.</p> <p>6.4.6 Use organizational features of electronic text (on computers), such as bulletin boards, databases, keyword searches, and e-mail addresses, to locate information.</p>	<p>The INCC Standard is a component of the research expectations found in the IAS. Please note that the INCC Standards use 6.W.7, 6.W.8, and 6.W.9 to fully articulate the research concepts and skills that students should develop.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

Indiana's Common Core:	Writing: Processes and Features	Instructional Transition Guidance
<p>W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grade 6 <i>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 grade 6 <i>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>6.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC Standards strongly emphasize that reading and writing tasks should be frequently integrated. Accordingly, this INCC Standard refers to the standards for reading in order to ensure that students are able to conduct research while demonstrating analysis and evaluation skills with various types of text.</p>
<p>W.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>6.5.7 Write for different purposes (information, persuasion, description) and to a specific audience or person, adjusting tone and style as necessary.</p>	<p>The INCC Standard emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

INCC Standards	Indiana's Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development	Instructional Transition Guidance
<p>L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Ensure that pronouns are in the proper case (subjective, objective, possessive).</p> <p>b. Use intensive pronouns (e.g., myself, ourselves).</p> <p>c. Recognize and correct inappropriate shifts in pronoun number and person.</p> <p>d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).</p> <p>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.</p>	<p>6.6.2 Identify and properly use indefinite pronouns (<i>all, another, both, each, either, few, many, none, one, other, several, some</i>), present perfect (<i>have been, has been</i>), past perfect (<i>had been</i>), and future perfect verb tenses (<i>shall have been</i>); ensure that verbs agree with compound subjects.</p>	<p>The INCC Standard includes greater emphasis on a variety of pronoun concepts. The verb tense content found in IAS (6.6.2) is addressed in the INCC Standards in previous grades (5.L.1.b and 3.L.1.f).</p> <p>5.L.1.b Form and use the perfect (e.g., I have walked; I have walked; I will have walked) verb tenses.</p> <p>3.L.1.f Ensure subject-verb and pronoun-antecedent agreement.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

INCC Standards	Indiana Academic Standards	Instrucitonal Transition Guidance
<b>Language Standards</b>	<p style="text-align: center;"><b>Reading: Word Recognition, Fluency, and Vocabulary Development</b></p> <p style="text-align: center;"><b>Writing: English Language Conventions</b></p>	
<p>L.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>b. Spell correctly.</p>	<p>6.6.4 Use correct capitalization.</p> <p>6.6.5 Spell correctly frequently misspelled words (<i>their/they're/there</i> , <i>loose/lose/loss</i> , <i>choose/chose</i> , <i>through/threw</i> ).</p>	<p>The INCC Standard and IAS are a good match.</p>
<p>L.3 Use knowledge of language and its conventions when writing, speaking, reading,</p> <p>a. Vary sentence patterns for meaning, reader/listener interest, and style.</p> <p>b. Maintain consistency in style and tone.</p>	<p>6.6.1 Use simple, compound, and complex sentences; use effective coordination and subordination of ideas, including both main ideas and supporting ideas in single sentences, to express complete thoughts.</p>	<p>The INCC Standard emphasizes the use of sentence structure and variety for specific purposes: to enhance meaning, engage the reader or listener, and to develop an appropriate style.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

<b>Language Standards</b>	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b>	<b>Instructional Transition Guidance</b>
	<b>Writing: English Language Conventions</b>	
<p>L.4 Determine or clarify the meaning of</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> <p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning</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>6.1.2 Identify and interpret figurative language (including similes, comparisons that use like or as, and metaphors, implied comparisons) and words with multiple meanings.</p> <p>6.1.4 Understand unknown words in informational texts by using word, sentence, and paragraph clues to determine meaning.</p>	<p>The INCC Standard includes more concepts than are addressed in IAS. Students should use common, grade-appropriate Greek and Latin affixes and roots, recognize and correct inappropriate shifts in pronoun number and position, and use reference materials to acquire vocabulary and validate inferences regarding meaning and pronunciation.</p>

**Grade 6 English Language Arts  
Instructional Transition Guidance**

INCC Standards Language Standards	Indiana Academic Standards	Instructional Transition Guidance
<p>L.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., stingy, scrimping, economical, un wasteful, thrifty).</p>	<p>6.1.2 Identify and interpret figurative language (including similes, comparisons that use like or as, and metaphors, implied comparisons) and words with multiple meanings.</p> <p>6.1.5 Understand and explain slight differences in meaning in related words.</p>	<p>The INCC Standard and IASs are a good match. Part b of this INCC Standard emphasizes that there are relationships between particular words in a passage that can be used to better understand their meanings. Students should also understand the concepts of connotative and denotative meaning.</p>
<p>L.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary</p>	<p>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this INCC Standard are not new, there is a <u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Grade 7 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	7.2.7 Draw conclusions and make reasonable statements about a text, supporting the conclusions and statements with evidence from the text.	The INCC Standard and the IAS are an excellent match.
RI.2 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.	7.5.5 Write summaries of reading materials that: <ul style="list-style-type: none"> <li>• include the main ideas and most significant details.</li> <li>• use the student's own words, except for quotations.</li> <li>• reflect underlying meaning, not just the superficial details.</li> </ul>	This INCC Standard is <b>NEW!</b>
RI.3 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).		This INCC Standard is <b>NEW!</b>
RI.4 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.		This INCC Standard is <b>NEW!</b>
RI.5 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.	7.2.1 Understand and analyze the differences in structure and purpose between various categories of informational materials (such as textbooks, newspapers, and instructional or technical manuals).	The INCC Standard and the IAS are an excellent match. The INCC Standard emphasizes how major sections contribute to the whole and to the development of the ideas in a text.

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.6 Determine an author’s point of view or purpose in a text and analyze how the author	7.2.4 Identify and trace the development of an author's argument, point of view or	The INCC Standard requires students to analyze how the author distinguishes his or her position from that of others.
RI.7 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).		This INCCStandard is <b>NEW!</b>
RI.8 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.	7.2.4 Identify and trace the development of an author's argument, point of view, or perspective in text. 7.2.6 Assess the adequacy, accuracy, and appropriateness of the author's evidence to support claims and assertions, noting instances of bias and stereotyping. 7.2.9 Identify problems with an author's figures of speech and faulty logic or reasoning.	The INCC Standard and the IAS are an excellent match. The IAS provide more specific performance expectations that fall within the general expectation provided by the INCCStandard.
RI.9 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.		This INCC Standard is <b>NEW!</b>
RI.10 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.	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this INCC Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Literature</b>	<b>Reading: Comprehension and Analysis of Literary Text</b>	<b>Instructional Transition Guidance</b>
RL.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.		This INCC Standard is <b>NEW!</b> (in the context of literature)
RL.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>7.3.4 Identify and analyze themes - such as bravery, loyalty, friendship, and loneliness - which appear in many different works.</p> <p>7.5.5 Write summaries of reading materials that:</p> <ul style="list-style-type: none"> <li>• include the main ideas and most significant details.</li> <li>• use the student's own words, except for quotations.</li> <li>• reflect underlying meaning, not just the superficial details.</li> </ul>	The INCC Standard requires students to analyze a theme's development.
RL.3 Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).	<p>7.3.8 Analyze the influence of the setting on the problem and its resolution.</p> <p>7.3.9 Analyze the relevance of setting (places, times, customs) to mood, tone, and meaning of text.</p>	The INCC Standard provides a general expectation that subsumes the IAS.
RL.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.	7.3.7 Explain the effects of common literary devices, such as symbolism, imagery, or metaphor, in a variety of fictional texts.	In addition to understanding how literary devices provide figurative meanings of words, the INCC Standard requires students to analyze the impact of rhymes and other repetitions of sounds on specific sections of a text.

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

<p style="text-align: center;"><b>INCC Standards Reading Standards for Literature</b></p>	<p style="text-align: center;"><b>Indiana Academic Standards Reading: Comprehension and Analysis of Literary Text</b></p>	<p style="text-align: center;"><b>Instructional Transition Guidance</b></p>
<p>RL.5 Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning.</p>	<p>7.3.1 Discuss the purposes and characteristics, of different forms of written text, such as the short story, the novel, the novella, and the essay.</p>	<p>The INCC Standard specifically references drama and poetry while the IAS refers to the purposes, characteristics, and forms of other types of written text.</p>
<p>RL.6 Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.</p>	<p>7.3.5 Contrast points of view - such as first person, third person, limited and omniscient, and subjective and objective - in a literary text and explain how they affect the overall theme of a work.</p>	<p>The INCC Standard and the IAS are a good match. The IAS includes how the point of view affects the overall theme of a work. The INCC standard asks students to analyze how the author develops and contrasts points of view of characters and narrators rather than explain how points of view affect the theme.</p>
<p>RL.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>This INCCStandard is <b>NEW!</b></p>
<p>RL.8 (Not applicable to literature)</p>		
<p>RL.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>This INCCStandard is <b>NEW!</b></p>
<p>RL.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>Standard 3 - Reading: Comprehension and Analysis of Literary Text</p>	<p>While this INCCStandard does not represent a new expectation, it is more explicit about the need to attend to text complexity.</p> <p><u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u></p>

**Grade 7 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.1 Write arguments to support claims with clear reasons and relevant evidence.</p> <p>a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.</p> <p>b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.</p> <p>c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.</p> <p>d. Establish and maintain a formal style.</p> <p>e. Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>7.4.3 Support all statements and claims with anecdotes (first-person accounts), descriptions, facts and statistics, and specific examples.</p> <p>7.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• develop interpretations that show careful reading, understanding, and insight.</li> <li>• organize interpretations around several clear ideas, premises, or images from the literary work.</li> <li>• support statements with evidence from the text.</li> </ul> <p>7.5.4 Write persuasive compositions that:</p> <ul style="list-style-type: none"> <li>• state a clear position or perspective in support of a proposition or proposal.</li> <li>• describe the points in support of the proposition, employing well-articulated evidence and effective emotional appeals.</li> <li>• anticipate and address reader concerns and counterarguments.</li> </ul>	<p>The INCC Standard and IAS are an excellent match. Please consider the following: (a) the INCC Standard does not use the term thesis; (b) the INCC Standard (part c) emphasizes how words, phrases, and clauses can be leveraged to maximize cohesion and clarify relationships among ideas and reasons; and (c) the INCC Standard requires students to attend to the establishment of a formal style.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Writing Standards</b>	<b>Writing: Processes and Features Writing: Applications</b>	
<p>W.2 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 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.</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 create cohesion and 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 and supports the information or explanation presented.</p>	<p>7.5.1 Write biographical or autobiographical compositions that:</p> <ul style="list-style-type: none"> <li>• develop a standard plot line — including a beginning, conflict, rising action, climax, and denouement (resolution) — and point of view.</li> <li>• develop complex major and minor characters and a definite setting.</li> <li>• use a range of appropriate strategies, such as dialogue; suspense; and the naming of specific narrative action, including movement, gestures, and expressions.</li> </ul> <p>7.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• develop interpretations that show careful reading, understanding, and insight.</li> <li>• organize interpretations around several clear ideas, premises, or images from the literary work.</li> <li>• support statements with evidence from the text.</li> </ul>	<p>The INCC Standard provides a more general expectation for the writing of informative/explanatory texts. The IAS offer specific performances that fall under the category prescribed by the INCC Standard. In addition, the INCC Standard encourages the use of graphics and multimedia when useful to aiding comprehension. Finally, the INCC Standard attends to the need to establish and maintain a formal style.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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>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 frame or setting to another.</p> <p>d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.</p> <p>e. Provide a conclusion that follows from and reflects on the narrated experiences or events.</p>	<p>7.5.1 Write biographical or autobiographical compositions that:</p> <ul style="list-style-type: none"> <li>• develop a standard plot line — including a beginning, conflict, rising action, climax, and denouement (resolution) — and point of view.</li> <li>• develop complex major and minor characters and a definite setting.</li> <li>• use a range of appropriate strategies, such as dialogue; suspense; and the naming of specific narrative action, including movement, gestures, and expressions.</li> </ul>	<p>The INCC Standard provides greater guidance on the effective components of a narrative. The IAS is subsumed by the INCC Standard expectation.</p>
<p>W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>7.4.2 Create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences to unify important ideas.</p>	<p>The INCC Standard and IAS are an excellent match. The INCC Standard attends to the fact that composition decisions should take into account the task, purpose, and audience.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.5 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.</p>	<p>7.4.1 Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.</p> <p>7.4.8 Review, evaluate, and revise writing for meaning and clarity.</p> <p>7.4.9 Edit and proofread one’s own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of frequent errors.</p> <p>7.4.10 Revise writing to improve organization and word choice after checking the logic of the ideas and the precision of the vocabulary.</p>	<p>The INCC Standard and IAS are an excellent match. The IAS provide specific ways to accomplish the expectation of the INCC Standard.</p>
<p>W.6 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>7.4.7 Use a computer to create documents by using word-processing skills and publishing programs; develop simple databases and spreadsheets to manage information and prepare reports.</p>	<p>The INCC Standard leverages the use of technology as a collaboration and publishing tool.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	<p style="text-align: center;"><b>Writing: Processes and Features</b> <b>Writing: Applications</b></p>	
<p>W.7 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>7.4.5 Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research.</p> <p>7.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized and that the topic has been refined through this process.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC Standard is a component of the IAS. Please see W.8 and W.9 to understand the full range of research skills students should develop.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
<p align="center"><b>Writing Standards</b></p>	<p align="center"><b>Writing: Processes and Features</b> <b>Writing: Applications</b></p>	
<p>W.8 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>7.4.4 Use strategies of note-taking, outlining, and summarizing to impose structure on composition drafts.</p> <p>7.4.6 Give credit for both quoted and paraphrased information in a bibliography by using a consistent format for citations and understand the issues around copyright and plagiarism.</p> <p>7.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized and that the topic has been refined through this process.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC Standard is a component of the IAS. Please see W.7 and W.9 to understand the full range of research skills students should develop.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grade 7 Reading standards 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 grade 7 Reading standards 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>7.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized and that the topic has been refined through this process.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC Standard is a component of the IAS. Please see W.7 and W.8 to understand the full range of research skills students should develop. Also, the INCC Standard emphasizes the need to integrate reading and writing tasks. Accordingly, the Reading Standards for Literature and Reading Standards for Informational Text are included in the research cluster.</p>
<p>W.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>7.5.7 Write for different purposes and to a specific audience or person, adjusting style and tone as necessary.</p>	<p>The INCC Standard emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	
Language Standards	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b> <b>Writing: English Language Conventions</b>	Instructional Transition Guidance
<p>L.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>7.6.1 Properly place modifiers (words or phrases that describe, limit, or qualify another word) and use the active voice (sentences in which the subject is doing the action) when wishing to convey a livelier effect.</p> <p>7.6.10 Use simple, compound, and complex sentences; use effective coordination and subordination of ideas, including both main ideas and supporting ideas in single sentences, to express complete thoughts.</p> <p>7.6.5 Demonstrate appropriate English usage (such as pronoun reference).</p>	<p>The INCC Standard and the IAS are an excellent match. IAS 7.6.1 attends to the use of the active voice (found in INCCStandard 8.L.3a). Also, when choosing among simple, compound, complex, and compound-complex sentences (as found in the INCC Standard), students will need to develop the ability to use effective coordination and subordination of ideas.</p>
<p>L.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., <i>It was a fascinating, enjoyable movie</i> but not <i>He wore an old[,] green shirt</i> ).</p> <p>b. Spell correctly.</p>	<p>7.6.9 Spell correctly derivatives (words that come from a common base or root word) by applying the spellings of bases and affixes (prefixes and suffixes).</p> <p>7.6.8 Use correct capitalization.</p>	<p>The INCC Standard and the IAS are a good match. However, the INCC Standard refers to the use of commas to separate coordinate adjectives.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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>This INCC Standard is <b>NEW!</b></p>
<p>L.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, 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> <p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel).</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>7.1.2 Use knowledge of Greek, Latin, and Anglo-Saxon roots and word parts to understand subject-area vocabulary (science, social studies, and mathematics).</p> <p>7.1.3 Clarify word meanings through the use of definition, example, restatement, or through the use of contrast stated in the text.</p>	<p>The INCC Standard includes more concepts than are addressed in Indiana's Academic Standards. Students should use context as a clue to the meaning of a word or phrase. Also, students should use reference materials to verify preliminary determinations about the meaning of a word or phrase as well as to discern proper pronunciation.</p>

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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., refined, respectful, polite, diplomatic, condescending).</p>	<p>7.1.1 Identify and understand idioms and comparisons — such as analogies, metaphors, and similes — in prose and poetry.</p>	<p>The INCC Standard includes literary, Biblical, and mythological allusions. Also, students should distinguish among connotations of words with similar denotations.</p>
<p>L.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>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this INCC Standard are not new, there is a more explicit requirement that students acquire and use grade-appropriate academic and domain-specific words and phrases.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Grade 7 Engl. Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	Instructional Transition Guidance
<p>SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, 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 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>Since the IAS for Listening and Speaking are not currently assessed on ISTEP+ assessments, educators and students should implement the INCC Standards for Speaking and Listening as soon as possible.</p>
<p>SL.2 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>		

**Grade 7 English Language Arts  
Standards Correlation: IAS to INCC**

INCC Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
SL.3 Delineate a speaker’s argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.		The INCC Standards for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competencies in both rhetoric and multimedia content integration.
SL.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.		
SL.5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.		
SL.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.		

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.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.	8.2.9 Make reasonable statements and draw conclusions about a text, supporting them with accurate examples.	The INCC and the IAS are an excellent match.
RI.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.		This INCC is <b>NEW!</b>
RI.3 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).	8.2.6 Evaluate the logic (inductive or deductive argument), internal consistency, and structural patterns of text.	The INCC is a component of the IAS. In order to evaluate the logic of an argument or a piece's internal consistency, students must meet the expectation found in the INCC. Please see RI.8.
RI.4 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.	8.1.1 Analyze idioms and comparisons - such as analogies, metaphors, and similes - to infer the literal and figurative meanings of phrases.	The INCC includes allusions and the analysis of specific word choices on meaning and tone.
RI.5 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.		This INCC is <b>NEW!</b>
RI.6 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.	8.2.2 Analyze text that uses proposition and support patterns.	The INCC requires analysis of how the author acknowledges and responds to conflicting evidence or viewpoints.

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Informational Text	Reading: Comprehension and Analysis of Nonfiction and Informational Text	
RI.7 Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.		This INCC is <b>NEW!</b>
RI.8 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.	8.2.6 Evaluate the logic (inductive or deductive argument), internal consistency, and structural patterns of text.	The INCC and the IAS are an excellent match.
RI.9 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.	8.2.3 Find similarities and differences between texts in the treatment, amount of coverage, or organization of ideas.	The INCC requires identification of where texts disagree on matters of fact or interpretation.
RI.10 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.	Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity. <a href="#">Please click here to view Appendix A for more information on text complexity.</a>

**Grade 8 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
<p>RL.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>This INCC is <b>NEW!</b> (in the context of literature)</p>
<p>RL.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>8.3.5 Identify and analyze recurring themes (such as good versus evil) that appear frequently across traditional and contemporary works.</p>	<p>The INCC requires students to determine how a theme relates to the characters, setting, and plot. In addition, students should provide an objective summary of the text.</p>
<p>RL.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>This INCC is <b>NEW!</b></p>
<p>RL.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>8.3.6 Identify significant literary devices, such as metaphor, symbolism, dialect or quotations, and irony, which define a writer's style and use those elements to interpret the work.</p>	<p>The INCC requires students to analyze the specific impact of word choices (including through analogies or allusions to other texts) on meaning and tone.</p>
<p>RL.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>8.3.1 Determine and articulate the relationship between the purposes and characteristics of different forms of poetry (including ballads, lyrics, couplets, epics, elegies, odes, and sonnets).</p>	<p>The INCC is not restricted to poetry as in the IAS.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Literature</b>	<b>Reading: Comprehension and Analysis of Literary Text</b>	
RL.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.	8.3.8 Contrast points of view - such as first person, third person, limited and omniscient, and subjective and objective - in a narrative text and explain how they affect the overall theme of the work.	The INCC refers to the concept of dramatic irony and addresses the creation of specific effects, including suspense and humor.
RL.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.		This INCC is <b>NEW!</b>
RL.8 (Not applicable to literature)		
RL.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.	8.3.7 Analyze a work of literature, showing how it reflects the heritage, traditions, attitudes, and beliefs of its author.	The INCC emphasizes how modern works are shaped by earlier works, including ancient and classical pieces.
RL.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	Standard 3 - Reading: Comprehension and Analysis of Literary Text	While this INCC does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Writing Standards</b>	<b>Writing: Processes and Features Writing: Applications</b>	<b>Instructional Transition Guidance</b>
<p>W.1 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>b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.</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> <p>e. Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>8.4.2 Create compositions that have a clear message, a coherent thesis (a statement of position on the topic), and end with a clear and well-supported conclusion.</p> <p>8.4.3 Support theses or conclusions with analogies (comparisons), paraphrases, quotations, opinions from experts, and similar devices.</p> <p>8.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate careful reading and insight into interpretations.</li> <li>• connect response to the writer's techniques and to specific textual references.</li> <li>• make supported inferences about the</li> </ul> <p>8.5.4 Write persuasive compositions that:</p> <ul style="list-style-type: none"> <li>• include a well-defined thesis that makes a clear and knowledgeable appeal.</li> <li>• present detailed evidence, examples, and reasoning to support effective arguments and emotional appeals.</li> <li>• provide details, reasons, and examples, arranging them effectively by anticipating and answering reader concerns and counterarguments.</li> </ul>	<p>The INCC and IAS are an excellent match. Please consider the following: (a) the INCC does not use the term thesis; (b) the INCC (part c) emphasizes how words, phrases, and clauses can be leveraged to maximize cohesion and clarify relationships among ideas and reasons; and (c) the INCC requires students to attend to the establishment of a formal style.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.2 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 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.</p> <p>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</p> <p>c. Use appropriate and varied transitions to create cohesion and 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 and supports the information or explanation presented.</p>	<p>8.4.2 Create compositions that have a clear message, a coherent thesis (a statement of position on the topic), and end with a clear and well-supported conclusion.</p> <p>short stories that:</p> <ul style="list-style-type: none"> <li>• tell about an incident, event, or situation, using well-chosen details.</li> <li>• reveal the significance of, or the writer's attitude about, the subject.</li> <li>• use narrative and descriptive strategies, including relevant dialogue, specific action, physical description, background description, and comparison or contrast of characters.</li> </ul> <p>8.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate careful reading and insight into interpretations.</li> <li>• connect response to the writer's techniques and to specific textual references.</li> <li>• make supported inferences about the effects of a literary work on its audience.</li> <li>• support statements with evidence from the text.</li> </ul> <p>8.5.5 Write technical documents that:</p> <ul style="list-style-type: none"> <li>• identify the sequence of activities needed to design a system, operate a tool, or explain the bylaws of an organization's constitution or guidelines.</li> <li>• include all the factors and variables that need to be considered.</li> <li>• use formatting techniques, including headings and changing the fonts (typeface) to aid comprehension.</li> </ul>	<p>The INCC provides a more general expectation for the writing of informative/explanatory texts. The IAS offer specific performances that fall under the category prescribed by the INCC. In addition, the INCC encourages the use of graphics and multimedia when useful to aiding comprehension. Finally, the INCC attends to the need to establish and maintain a formal style.</p>

**Grade 8 Engl. Language Arts**  
**Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.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>b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.</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>d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.</p> <p>e. Provide a conclusion that follows from and reflects on the narrated experiences or events.</p>	<p>8.5.1 Write biographies, autobiographies, and short stories that:</p> <ul style="list-style-type: none"> <li>• tell about an incident, event, or situation, using well-chosen details.</li> <li>• reveal the significance of, or the writer's attitude about, the subject.</li> <li>• use narrative and descriptive strategies, including relevant dialogue, specific action, physical description, background description, and comparison or contrast of characters.</li> </ul>	<p>The INCC provides greater guidance on the effective components of a narrative. The IAS is subsumed by the INCC expectation.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Writing Standards	Writing: Processes and Features Writing: Applications	
<p>W.4 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>8.4.10 Create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences to unify important ideas.</p>	<p>The INCC and IAS are an excellent match. The INCC attends to the fact that composition decisions should take into account the task, purpose, and audience.</p>
<p>W.5 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.</p>	<p>8.4.1 Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.</p> <p>8.4.7 Review, evaluate, and revise writing for meaning and clarity.</p> <p>8.4.8 Edit and proofread one’s own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of frequent errors.</p> <p>8.4.9 Revise writing for word choice; appropriate organization; consistent point of view; and transitions among paragraphs, passages, and ideas.</p>	<p>The INCC and IAS are an excellent match. The IAS provide specific ways to accomplish the expectation of the INCC.</p>
<p>W.6 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>8.4.6 Use a computer to create documents by using word-processing skills and publishing programs; develop simple databases and spreadsheets to manage information and prepare reports.</p>	<p>The INCC leverages the use of technology as a collaboration and publishing tool.</p>

**Grade 8 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Writing Standards</b>	<b>Writing: Processes and Features Writing: Applications</b>	<b>Instructional Transition Guidance</b>
<p>W.7 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>8.4.11 Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research.</p> <p>8.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized and that the topic has been refined through this process.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one's own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC is a component of the IAS. Please see W.8 and W.9 to understand the full range of research skills students should develop.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

INCCs	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.8 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>8.4.4 Plan and conduct multiple-step information searches using computer networks.</p> <p>8.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized and that the topic has been refined through this process.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC is a component of the IAS. Please see W.7 and W.9 to understand the full range of research skills students should develop.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features  Writing: Applications	Instructional Transition Guidance
<p>W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grade 8 Reading standards 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”).</p> <p>b. Apply grade 8 Reading standards 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>	<p>8.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations.</li> <li>• demonstrates that information that has been gathered has been summarized and that the topic has been refined through this process.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by categorizing and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The INCC is a component of the IAS. Please see W.7 and W.8 to understand the full range of research skills students should develop.</p>
<p>W.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>8.5.7 Write for different purposes and to a specific audience or person, adjusting tone and style as necessary.</p>	<p>The INCC emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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>b. Form and use verbs in the active and passive voice.</p> <p>c. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.</p> <p>d. Recognize and correct inappropriate shifts in verb voice and mood.</p>	<p>8.6.8 Identify and use infinitives (the word <i>to</i> followed by the base form of a verb, such as <i>to understand</i> or <i>to learn</i>) and participles (made by adding -ing, -d, -ed, -n, -en, or -t to the base form of the verb, such as <i>dreaming</i>, <i>chosen</i>, <i>built</i>, and <i>grown</i>).</p>	<p>The INCC includes more content than the IAS at this grade level (parts b-d).</p>
<p>L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break.</p> <p>b. Use an ellipsis to indicate an omission.</p> <p>c. Spell correctly.</p>	<p>8.6.4 Edit written manuscripts to ensure that correct grammar is used.</p> <p>8.6.5 Use correct punctuation.</p> <p>8.6.6 Use correct capitalization.</p> <p>8.6.7 Use correct spelling conventions.</p>	<p>The INCC and IAS are an excellent match. The INCC specifically requires students to use punctuation (comma, ellipsis, dash) to indicate a pause or break. An ellipsis may also indicate an omission.</p>

**Grade 8 Engl. Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>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>	<p>8.6.1 Use correct and varied sentence types (simple, compound, complex, and compound-complex) and sentence openings to present a lively and effective personal style.</p>	<p>The INCC is primarily concerned with the use of different verb tenses to achieve particular effects while the IAS refers to sentence types. Of course, to achieve the subjunctive mood often requires particular sentence structures. The IAS is a better match with INCC 6.L.3a (Use knowledge of language and its conventions when writing, speaking, reading, or listening. a. Vary sentence patterns for meaning, reader/listener interest, and style.)</p>
<p>L.4 Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, 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> <p>b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede).</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>8.1.3 Verify the meaning of a word in its context, even when its meaning is not directly stated, through the use of definition, restatement, example, comparison, or contrast.</p>	<p>The INCC includes more concepts than are addressed in Indiana's Academic Standard. Students should use common, grade-appropriate Greek and Latin affixes and roots and use reference materials to acquire vocabulary and validate inferences regarding meaning and pronunciation.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	Instructional Transition Guidance
<p>L.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., bullheaded, willful, firm, persistent, resolute).</p>	<p>8.1.1 Analyze idioms and comparisons — such as analogies, metaphors, and similes — to infer the literal and figurative meanings of phrases.</p>	<p>The INCC includes verbal irony and puns as well as the ability to use the relationship between particular words to better understand their respective meanings. In addition, the INCC emphasizes the need for students to distinguish among the connotative and denotative meanings of words.</p>
<p>L.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>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this INCC are not new, there is a more explicit requirement that students acquire and use grade-appropriate academic and domain-specific words and phrases.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	Instructional Transition Guidance
<p>SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, 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 and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</p> <p>c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.</p> <p>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</p>		<p>Since the IAS for Listening and Speaking are not currently assessed on ISTEP+ assessments, educators and students should implement the INCC for Speaking and Listening as soon as possible.</p>

**Grade 8 English Language Arts  
Standards Correlation: IAS to INCC**

Indiana's Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
<p>SL.2 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>The INCCs for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competencies in both rhetoric and multimedia content integration.</p>
<p>SL.3 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>		
<p>SL.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.5 Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.</p>		
<p>SL.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.</p>		

**Grade 9 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<b>Reading Standards for Informational Text</b>	<b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b>	
RI.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	9.2.8 Make reasonable statements and draw conclusions about a text, supporting them with accurate examples.	The Common Core Standard and Indiana Academic Standard are an excellent match.
RI.2 Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.		This Common Core Standard is <b>NEW!</b>
RI.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.	9.2.7 Evaluate an author's argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text.	The Common Core Standard is primarily concerned with how an author unfolds an analysis or series of ideas and events rather than evaluating the quality of the information presented. Please see RI.8.
RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).	9.1.2 Distinguish between what words mean literally and what they imply and interpret what the words imply.	The Common Core Standard includes analysis of the cumulative impact of specific word choices on meaning and tone. Also, students should be able to determine the technical meanings of words. <i>Note</i> : The Indiana Academic Standard is from Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development.
RI.5 Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).		This Common Core Standard is <b>NEW!</b>

**Grade 9 English Language Arts  
Instructional Transition Guidance**

<p>RI.6 Determine an author’s point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.</p>	<p>9.2.7 Evaluate an author's argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text.</p>	<p>The Common Core Standard attends to both point of view and author's purpose. Also, the Common Core Standard emphasizes how an author uses rhetoric.</p>
<p>RI.7 Analyze various accounts of a subject told in different mediums (e.g., a person’s life story in both print and multimedia), determining which details are emphasized in each account.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RI.8 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.</p>	<p>9.2.7 Evaluate an author's argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text.</p>	<p>The Common Core Standard is more explicit about the types of evaluation that should be done when considering the validity and credibility of reasoning and evidence.</p>
<p>RI.9 Analyze seminal U.S. documents of historical and literary significance (e.g., Washington’s Farewell Address, the Gettysburg Address, Roosevelt’s Four Freedoms speech, King’s “Letter from Birmingham Jail”), including how they address related themes and concepts.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RI.10 By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	<p>Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text</p>	<p>While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u>Please click here to view Appendix A for more information on text complexity.</u></p>

**Additional Notes**

In addition to the Indiana Academic Standards included in the chart above, the following are also essential for adequately preparing students to be successful on the English 10 End-of-Course Assessment (ECA): **9.2.1, 9.2.2, 9.2.3, 9.2.4,** and **9.2.6.** Indiana Academic Standard **9.2.5** should be assessed through in-class measures.

**Grade 9 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<p style="text-align: center;"><b>Reading Standards for Literature</b></p>	<p style="text-align: center;"><b>Reading: Comprehension and Analysis of Literary Text</b></p>	
<p>RL.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>		<p>This Common Core Standard is <b>NEW!</b> (in the context of literature)</p>
<p>RL.2 Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</p>	<p>9.3.2 Compare and contrast the presentation of a similar theme or topic across genres (different types of writing) to explain how the selection of genre shapes the theme or topic.</p> <p>9.3.5 Compare works that express a universal theme and provide evidence to support the views expressed in each work.</p>	<p>The Common Core Standard and the Indiana Academic Standards are only a partial match. The Common Core Standard is particularly interested in how a theme or central idea is developed over the course of a text by specific details. Indiana Academic Standard 10.3.2 requires students to compare and contrast how similar themes are expressed in various genres. Indiana Academic Standard 10.3.5 references the concept of universal theme. Finally, the Common Core Standard requires students to provide an objective summary of the text.</p>
<p>RL.3 Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>9.3.3 Analyze interactions between characters in a literary text and explain the way those interactions affect the plot.</p>	<p>The Common Core Standard emphasizes how complex characters are developed over the course of a text.</p>
<p>RL.4 Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).</p>	<p>9.3.11 Evaluate the aesthetic qualities of style, including the impact of diction and figurative language on tone, mood, and theme.</p>	<p>The Common Core Standard and Indiana Academic Standard are a good match. The Common Core Standard requires students to determine the meaning of words and phrases as they are used in a text before analyzing their cumulative impact.</p>

**Grade 9 English Language Arts  
Instructional Transition Guidance**

<p>RL.5 Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.</p>	<p>9.3.6 Analyze and trace an author's development of time and sequence, including the use of complex literary devices, such as foreshadowing or flashbacks.</p>	<p>The Common Core Standard references the creation of specific effects, including mystery, tension, and surprise. The Indiana Academic Standard emphasizes foreshadowing and flashbacks as important literary devices.</p>
<p>RL.6 Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RL.7 Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden’s “Musée des Beaux Arts” and Breughel’s Landscape with the Fall of Icarus).</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RL.8 (Not applicable to literature)</p>		
<p>RL.9 Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare).</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RL.10 By the end of grade 9, read and comprehend literature, including stories, dramas, and poems, in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>		<p>While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity.</p> <p><u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u></p>

**Additional Notes**

In addition to the Indiana Academic Standards included in the chart above, the following are also essential for adequately preparing students to be successful on the English 10 End-of-Course Assessment (ECA): **9.3.4, 9.3.7, 9.3.9, 9.3.12, and 9.3.13**. Indiana Academic Standards **9.3.1, 9.3.8, and 9.3.10** should be assessed using in-class measures.

**Grade 9 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.</p> <p>a. 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.</p> <p>b. 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.</p> <p>c. Use words, phrases, and clauses 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.</p> <p>d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>e. Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>9.5.4 Write persuasive compositions that:</p> <ul style="list-style-type: none"> <li>• organize ideas and appeals in a sustained and effective fashion with the strongest emotional appeal first and the least powerful one last.</li> <li>• use specific rhetorical (communication) devices to support assertions, such as appealing to logic through reasoning; appealing to emotion or ethical belief; or relating a personal anecdote, case study, or analogy.</li> <li>• clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.</li> <li>• address readers' concerns, counterclaims, biases, and expectations.</li> </ul> <p>9.4.13 Establish coherence within and among paragraphs through effective transitions, parallel structures, and similar writing techniques.</p>	<p>The Common Core Standard is significantly more rigorous than the Indiana Academic Standards. In particular, students must 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. This sophistication and meaningful acknowledgement extends the depth of the argument. The Common Core Standard does not specifically reference logical, emotional, or ethical appeals. Rather than ordering emotional appeals from most powerful to least, the Common Core Standard insists on establishing a claim on a substantive topic by using valid reasoning as well as relevant and sufficient evidence.</p>

**Grade 9 English Language Arts  
Instructional Transition Guidance**

W.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

b. 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.

c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

d. Use precise language and domain-specific vocabulary to manage the complexity of the topic.

e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

9.4.3 Use precise language, action verbs, sensory details, and appropriate modifiers.

9.5.3 Write expository compositions, including analytical essays, summaries, descriptive pieces, or literary analyses that:

- gather evidence in support of a thesis (position on the topic), including information on all relevant perspectives.
- communicate information and ideas from primary and secondary sources accurately and coherently.
- make distinctions between the relative value and significance of specific data, facts, and ideas.
- use a variety of reference sources, including word, pictorial, audio, and Internet sources, to locate information in support of topic.
- include visual aids by using technology to organize and record information on charts, data tables, maps, and graphs.
- anticipate and address readers’ potential misunderstandings, biases, and expectations.
- use technical terms and notations accurately.

The Common Core Standard emphasizes the need to examine and convey complex ideas, concepts, and information. In addition, the Common Core Standard attends to the need to organize information in ways that make important connections and distinctions. This is aided by using appropriate and varied transitions to link the major sections of the text, creating cohesion and clarifying the relationships among complex ideas and concepts.

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Instructional Transition Guidance**

<p>W.3 Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.</p> <p>a. 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; create a smooth progression of experiences or events.</p> <p>b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.</p> <p>c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.</p> <p>d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.</p> <p>e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.</p>	<p>9.4.3 Use precise language, action verbs, sensory details, and appropriate modifiers.</p> <p>9.5.1 Write biographical or autobiographical narratives or short stories that:</p> <ul style="list-style-type: none"> <li>• describe a sequence of events and communicate the significance of the events to the audience.</li> <li>• locate scenes and incidents in specific places.</li> <li>• describe with specific details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters; in the case of short stories or autobiographical narratives, use interior monologue (what the character says silently to self) to show the character’s feelings.</li> <li>• pace the presentation of actions to accommodate changes in time and mood.</li> </ul>	<p>The Common Core Standard includes narratives that develop real or imagined experiences or events. In addition, students should engage and orient the reader by setting out a problem, situation, or observation. Also, students may leverage multiple plot lines to develop experiences, events, and/or characters.</p>
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Instructional Transition Guidance**

<p>W.4 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>9.4.2 Establish a coherent thesis that conveys a clear perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.</p> <p>9.5.8 Write for different purposes and audiences, adjusting tone, style, and voice as appropriate.</p>	<p>The Common Core Standard and the Indiana Academic Standards are an excellent match. Please note that the term <i>thesis</i> is not used in the Common Core Standard. Instead, students establish claims.</p>
<p>W.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p>	<p>9.4.10 Review, evaluate, and revise writing for meaning, clarity, content, and mechanics.</p> <p>9.4.11 Edit and proofread one’s own writing, as well as that of others, using an editing checklist with specific examples of corrections of frequent errors.</p> <p>9.4.12 Revise writing to improve the logic and coherence of the organization and perspective, the precision of word choice, and the appropriateness of tone by taking into consideration the audience, purpose, and formality of the context.</p>	<p>The Common Core Standard and the Indiana Academic Standards are an excellent match. In this case, the Indiana Academic Standards provide specific student performances that fit within the expectation of the Common Core Standard. The latter encourages students to (at times) try a new approach in order to develop and strengthen their writing.</p>
<p>W.6 Use technology, including the Internet, 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.</p>	<p>9.4.9 Use a computer to design and publish documents by using advanced publishing software and graphic programs.</p>	<p>The Common Core Standard provides a more sophisticated expectation for the use of technology, recognizing its capacity to be used for collaborative and publishing purposes.</p>

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Instructional Transition Guidance**

<p>W.7 Conduct short as well as more sustained research projects 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>	<p>9.4.6 Synthesize information from multiple sources, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, and Internet sources.</p> <p>9.5.9 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia), distinguishes between primary and secondary documents, and documents sources independently by using a consistent format for citations.</li> <li>• synthesizes information gathered from a variety of sources, including technology and one’s own research, and evaluates information for its relevance to the research questions.</li> <li>• demonstrates that information that has been gathered has been summarized, that the topic has been refined through this process, and that conclusions have been drawn from synthesizing information.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by classifying, categorizing, and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul>	<p>The Common Core Standard includes many of the research skills found in the Indiana Academic Standards. Please see W.8 and W.9 to understand the full range of research skills students should develop.</p>
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**Grade 9 English Language Arts  
Instructional Transition Guidance**

<p>W.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.</p>	<p>9.5.9 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"> <li>• uses information from a variety of sources (books, technology, multimedia), distinguishes between primary and secondary documents, and documents sources independently by using a consistent format for citations.</li> <li>• synthesizes information gathered from a variety of sources, including technology and one’s own research, and evaluates information for its relevance to the research questions.</li> <li>• demonstrates that information that has been gathered has been summarized, that the topic has been refined through this process, and that conclusions have been drawn from synthesizing information.</li> <li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li> <li>• organizes information by classifying, categorizing, and sequencing, and demonstrates the distinction between one’s own ideas from the ideas of others, and includes a bibliography (Works Cited).</li> </ul> <p>9.4.4 Use writing to formulate clear research questions and to compile information from primary and secondary print or Internet sources.</p> <p>9.4.6 Synthesize information from multiple sources, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, and Internet sources.</p> <p>9.4.7 Integrate quotations and citations into a written text while maintaining the flow of ideas.</p> <p>9.4.8 Use appropriate conventions for documentation in text, notes, and bibliographies, following the formats in specific style manuals.</p>	<p>The Common Core Standard includes many of the research skills found in the Indiana Academic Standards. Please see W.7 and W.9 to understand the full range of research skills students should develop.</p>
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**Grade 9 English Language Arts  
Instructional Transition Guidance**

<p>W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grades 9–10 Reading standards to literature (e.g., “Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]”).</p> <p>b. Apply grades 9–10 Reading standards to literary nonfiction (e.g., “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”).</p>	<p>9.4.5 Develop the main ideas within the body of the composition through supporting evidence, such as scenarios, commonly held beliefs, hypotheses, and definitions.</p> <p>9.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate a comprehensive grasp of the significant ideas of literary works.</li> <li>• support statements with evidence from the text.</li> <li>• demonstrate an awareness of the author’s style and an appreciation of the effects created.</li> <li>• identify and assess the impact of ambiguities, nuances, and complexities within the text.</li> </ul>	<p>The Common Core Standard emphasizes the use of the Reading Standards for Literature and Reading Standards for Informational Text during the research process. In this case, students may be writing responses to literature as described in the Indiana Academic Standard. However, this Common Core Standard is appropriately included as part of the research cluster. Please see W.7 and W.8 to understand the full range of research skills students should develop.</p>
<p>W.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 tasks, purposes, and audiences.</p>	<p>9.5.8 Write for different purposes and audiences, adjusting tone, style, and voice as appropriate.</p>	<p>The Common Core Standard emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Additional Notes**

In addition to the Indiana Academic Standards included in the chart above, the following is also essential for adequately preparing students to be successful on the English 10 End-of-Course Assessment (ECA): **9.5.7**. Indiana Academic Standards **9.4.1**, **9.5.5**, and **9.5.6** should be assessed using in-class measures.

**Grade 9 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Language Standards	<b>Reading: Word Recognition, Fluency, and Vocabulary Development</b> <b>Writing: English Language Conventions</b>	
<p>L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Use parallel structure.</p> <p>b. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.</p>	<p>9.6.1 Identify and correctly use clauses, both main and subordinate; phrases, including gerund, infinitive, and participial; and the mechanics of punctuation, such as semicolons, colons, ellipses, and hyphens.</p> <p>9.6.2 Demonstrate an understanding of sentence construction, including parallel structure, subordination, and the proper placement of modifiers, and proper English usage, including the use of consistent verb tenses.</p>	<p>The Common Core Standard and the Indiana Academic Standards are a good match. While the terminology in the Common Core Standard is slightly different, similar concepts are emphasized in both sets of standards. <i>Note</i> : The use of an ellipsis is taught in the eighth grade (8.L.2.b) in the Common Core Standards while the proper use of hyphens is taught in eleventh and twelfth grade (11-12.L.2.a).</p>
<p>L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.</p> <p>b. Use a colon to introduce a list or quotation.</p> <p>c. Spell correctly.</p>	<p>9.6.3 Produce legible work that shows accurate spelling and correct use of the conventions of punctuation and capitalization.</p> <p>9.6.1 Identify and correctly use clauses, both main and subordinate; phrases, including gerund, infinitive, and participial; and the mechanics of punctuation, such as semicolons, colons, ellipses, and hyphens.</p>	<p>The Common Core Standard and the Indiana Academic Standards are an excellent match. The Common Core Standard includes specific contexts for the use of semicolons and colons.</p>

**Grade 9 Engl. Language Arts  
Instructional Transition Guidance**

<p>L.3 Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.</p> <p>a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., MLA Handbook, Turabian’s Manual for Writers) appropriate for the discipline and writing type.</p>	<p>9.6.4 Apply appropriate manuscript conventions — including title page presentation, pagination, spacing, and margins — and integration of source and support material by citing sources within the text, using direct quotations, and paraphrasing.</p>	<p>The Common Core Standard and the Indiana Academic Standard are only a partial match. While both attend to editing and style guidelines, the Common Core Standard requires students to understand how language functions in different contexts in order to make effective choices for meaning or style.</p>
<p>L.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9–10 reading and content, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy).</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, its part of speech, or its etymology.</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>9.1.2 Distinguish between what words mean literally and what they imply and interpret what the words imply.</p>	<p>The Common Core Standard and the Indiana Academic Standard are a poor match. At this grade level, the majority of the skills emphasized in the Common Core Standard are <b>NEW!</b> The Indiana Academic Standard refers to some of these concepts in earlier grade levels (e.g., using context as a clue to the meaning of a word or phrase), but the Common Core Standard insists that students continue to develop sophistication with these skills with increasingly complex text.</p>

**Grade 9 English Language Arts  
Instructional Transition Guidance**

<p>L.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.</p> <p>b. Analyze nuances in the meaning of words with similar denotations.</p>	<p>9.1.1 Identify and use the literal and figurative meanings of words and understand the origins of words.</p>	<p>The Common Core Standard requires students to attend to nuances in word meanings as well as the specific concepts of euphemism and oxymoron.</p>
<p>L.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	<p>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this Common Core Standard are not new, there is a more explicit requirement that students acquire and use grade-appropriate academic and domain-specific words and phrases.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Additional Notes**

Indiana Academic Standard **9.1.3** should be assessed using in-class measures.

**Grade 9 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	
<p>SL.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.</p> <p>c. 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.</p> <p>d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.</p>		<p>Since the Indiana Academic Standards for Listening and Speaking are not currently assessed on the English 10 End-of-Course Assessment (ECA), educators and students should implement the Common Core Standards for Speaking and Listening as soon as possible.</p>

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<p>SL.2 Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.</p>		
<p>SL.3 Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.</p>		
<p>SL.4 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.</p>		<p>The Common Core Standards for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competencies in both rhetoric and multimedia content integration.</p>
<p>SL.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.</p>		
<p>SL.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.</p>		

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Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
<p><b>Reading Standards for Informational Text</b></p>	<p><b>Reading: Comprehension and Analysis of Nonfiction and Informational Text</b></p>	
<p>RI.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>10.2.5 Make reasonable statements and draw conclusions about a text, supporting them with accurate examples.</p>	<p>The Common Core Standard and the Indiana Academic Standard are an excellent match. The Common Core Standard emphasizes the use of thorough textual evidence.</p>
<p>RI.2 Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RI.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.</p>	<p>10.2.4 Evaluate an author’s argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author’s intent affects the structure and tone of the text.</p>	<p>The Common Core Standard is primarily concerned with how an author unfolds an analysis or series of ideas and events rather than evaluating the quality of the information presented. Please see RI.8.</p>
<p>RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).</p>	<p>10.1.2 Distinguish between what words mean literally and what they imply, and interpret what words imply.</p>	<p>The Common Core Standard includes analysis of the cumulative impact of specific word choices on meaning and tone. Also, students should be able to determine the technical meanings of words. <i>Note</i> : The Indiana Academic Standard is from Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development.</p>
<p>RI.5 Analyze in detail how an author’s ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).</p>		<p>This Common Core Standard is <b>NEW!</b></p>

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<p>RI.6 Determine an author’s point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.</p>	<p>10.2.4 Evaluate an author’s argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author’s intent affects the structure and tone of the text.</p>	<p>The Common Core Standard requires students to analyze how an author uses rhetoric to advance his or her point of view or purpose.</p>
<p>RI.7 Analyze various accounts of a subject told in different mediums (e.g., a person’s life story in both print and multimedia), determining which details are emphasized in each account.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RI.8 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.</p>	<p>10.2.4 Evaluate an author’s argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author’s intent affects the structure and tone of the text.</p>	<p>The Common Core Standard requires students to assess the validity and sufficiency of evidence provided. In addition, students should be able to identify false statements and fallacious reasoning.</p>
<p>RI.9 Analyze seminal U.S. documents of historical and literary significance (e.g., Washington’s Farewell Address, the Gettysburg Address, Roosevelt’s Four Freedoms speech, King’s “Letter from Birmingham Jail”), including how they address related themes and concepts.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RI.10 By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	<p>Standard 2 - Reading: Comprehension and Analysis of Nonfiction and Informational Text</p>	<p>While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity. <u><a href="#">Please click here to view Appendix A for more information on text complexity.</a></u></p>

**Additional Notes**

In addition to the Indiana Academic Standards included in the chart above, the following is also essential for adequately preparing students to be successful on the English 10 End-of-Course Assessment (ECA): **10.2.1**. Indiana Academic Standards **10.2.2** and **10.2.3** should be assessed through in-class measures.

**Grade 10 Engi. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Reading Standards for Literature	Reading: Comprehension and Analysis of Literary Text	
<p>RL.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>		<p>This Common Core Standard is <b>NEW!</b> (in the context of literature)</p>
<p>RL.2 Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</p>	<p>10.3.2 Compare and contrast the presentation of a similar theme or topic across genres (different types of writing) to explain how each genre shapes the author’s presentation of the theme or topic.</p> <p>10.3.5 Compare works that express a universal theme and provide evidence to support the views expressed in each work.</p>	<p>The Common Core Standard and the Indiana Academic Standards are only a partial match. The Common Core Standard is particularly interested in how a theme or central idea is developed over the course of a text by specific details. Indiana Academic Standard 10.3.2 requires students to compare and contrast how similar themes are expressed in various genres. Indiana Academic Standard 10.3.5 references the concept of universal theme. Finally, the Common Core Standard requires students to provide an objective summary of the text.</p>
<p>RL.3 Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>10.3.3 Evaluate interactions between characters in a literary text and explain the way those interactions affect the plot.</p>	<p>The Common Core Standard emphasizes how complex characters develop over the course of a text.</p>
<p>RL.4 Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).</p>	<p>10.3.11 Evaluate the aesthetic qualities of style, including the impact of diction and figurative language on tone, mood, and theme.</p>	<p>The Common Core Standard and Indiana Academic Standard are a good match. The Common Core Standard requires students to determine the meaning of words and phrases as they are used in a text before analyzing their cumulative impact.</p>

## Grade 10 English Language Arts Instructional Transition Guidance

<p>RL.5 Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.</p>	<p>10.3.6 Evaluate an author’s development of time and sequence, including the use of complex literary devices, such as foreshadowing or flashbacks.</p>	<p>The Common Core Standard references the creation of specific effects, including mystery, tension, and surprise. The Indiana Academic Standard emphasizes foreshadowing and flashbacks as important literary devices.</p>
<p>RL.6 Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RL.7 Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden’s “Musée des Beaux Arts” and Breughel’s Landscape with the Fall of Icarus).</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RL.8 (Not applicable to literature)</p>		
<p>RL.9 Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare).</p>		<p>This Common Core Standard is <b>NEW!</b></p>
<p>RL.10 By the end of grade 9, read and comprehend literature, including stories, dramas, and poems, in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	<p>Standard 3 - Reading: Comprehension and Analysis of Literary Text</p>	<p>While this Common Core Standard does not represent a new expectation, it is more explicit about the need to attend to text complexity. Please click <a href="#">here</a> to view Appendix A for more information on text complexity.</p>

### Additional Notes

In addition to the Indiana Academic Standards included in the chart above, the following are also essential for adequately preparing students to be successful on the English 10 End-of-Course Assessment (ECA): **10.3.4, 10.3.7, 10.3.9, 10.3.12, and 10.3.13**. Indiana Academic Standards **10.3.1, 10.3.8, and 10.3.10** should be assessed through in-class measures.

**Grade 10 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Writing Standards	Writing: Processes and Features Writing: Applications	Instructional Transition Guidance
<p>W.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.</p> <p>a. 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.</p> <p>b. 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.</p> <p>c. Use words, phrases, and clauses 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.</p> <p>d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>e. Provide a concluding statement or section that follows from and supports the argument presented.</p>	<p>10.5.4 Write persuasive compositions that:</p> <ul style="list-style-type: none"> <li>• organize ideas and appeals in a sustained and effective fashion with the strongest emotional appeal first and the least powerful one last.</li> <li>• use specific rhetorical (communication) devices to support assertions, such as appealing to logic through reasoning; appealing to emotion or ethical belief; or relating a personal anecdote, case study, or analogy.</li> <li>• clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.</li> <li>• address readers’ concerns, counterclaims, biases, and expectations.</li> </ul> <p>10.4.13 Establish coherence within and among paragraphs through effective transitions, parallel structures, and similar writing techniques.</p>	<p>The Common Core Standard is significantly more rigorous than the Indiana Academic Standards. In particular, students must 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. This sophistication and meaningful acknowledgement extends the depth of the argument. The Common Core Standard does not specifically reference logical, emotional, or ethical appeals. Rather than ordering emotional appeals from most powerful to least, the Common Core Standard insists on establishing a claim on a substantive topic by using valid reasoning as well as relevant and sufficient evidence.</p>

## Grade 10 English Language Arts Instructional Transition Guidance

<p>W.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p>a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>b. 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.</p> <p>c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>d. Use precise language and domain-specific vocabulary to manage the complexity of the topic.</p> <p>e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>	<p>10.4.3 Use precise language, action verbs, sensory details, appropriate modifiers, and the active (I will always remember my first trip to the city) rather than the passive voice (My first trip to the city will always be remembered).</p> <p>10.5.3 Write expository compositions, including analytical essays, summaries, descriptive pieces, or literary analyses that:</p> <ul style="list-style-type: none"> <li>• gather evidence in support of a thesis (position on the topic), including information on all relevant perspectives.</li> <li>• communicate information and ideas from primary and secondary sources accurately and coherently.</li> <li>• make distinctions between the relative value and significance of specific data, facts, and ideas.</li> <li>• use a variety of reference sources, including word, pictorial, audio, and Internet sources to locate information in support of a topic.</li> <li>• include visual aids by using technology to organize and record information on charts, maps, and graphs.</li> <li>• anticipate and address readers’ potential misunderstandings, biases, and expectations.</li> <li>• use technical terms and notations correctly.</li> </ul>	<p>The Common Core Standard emphasizes the need to examine and convey complex ideas, concepts, and information. In addition, the Common Core Standard attends to the need to organize information in ways that make important connections and distinctions. This is aided by using appropriate and varied transitions to link the major sections of the text, creating cohesion and clarifying the relationships among complex ideas and concepts.</p>
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**Grade 10 Eng. Language Arts  
Instructional Transition Guidance**

<p>W.3 Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.</p> <p>a. 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; create a smooth progression of experiences or events.</p> <p>b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.</p> <p>c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.</p> <p>d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.</p> <p>e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.</p>	<p>10.4.3 Use precise language, action verbs, sensory details, appropriate modifiers, and the active (I will always remember my first trip to the city) rather than the passive voice (My first trip to the city will always be remembered).</p> <p>10.5.1 Write biographical or autobiographical narratives or short stories that:</p> <ul style="list-style-type: none"> <li>• describe a sequence of events and communicate the significance of the events to the audience.</li> <li>• locate scenes and incidents in specific places.</li> <li>• describe with specific details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters; in the case of short stories or autobiographical narratives, use interior monologue (what the character says silently to self) to show the character’s feelings.</li> <li>• pace the presentation of actions to accommodate changes in time and mood.</li> </ul>	<p>The Common Core Standard includes narratives that develop real or imagined experiences or events. In addition, students should engage and orient the reader by setting out a problem, situation, or observation. Also, students may leverage multiple plot lines to develop experiences, events, and/or characters.</p>
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**Grade 10 English Language Arts  
Instructional Transition Guidance**

<p>W.4 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>10.4.2 Establish a coherent thesis that conveys a clear perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.</p> <p>10.5.8 Write for different purposes and audiences, adjusting tone, style, and voice as appropriate.</p>	<p>The Common Core Standard and the Indiana Academic Standards are an excellent match. Please note that the term <i>thesis</i> is not used in the Common Core Standard. Instead, students establish claims.</p>
<p>W.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p>	<p>10.4.10 Review, evaluate, revise, edit, and proofread writing using an editing checklist.</p> <p>10.4.11 Apply criteria developed by self and others to evaluate the mechanics and content of writing.</p> <p>10.4.12 Provide constructive criticism to other writers with suggestions for improving organization, tone, style, clarity, and focus; edit and revise in response to peer reviews of own work.</p>	<p>The Common Core Standard and the Indiana Academic Standards are an excellent match. In this case, the Indiana Academic Standards provide specific student performances that fit within the expectation of the Common Core Standard. The latter encourages students to (at times) try a new approach in order to develop and strengthen their writing.</p>
<p>W.6 Use technology, including the Internet, 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.</p>	<p>10.4.9 Use a computer to design and publish documents by using advanced publishing software and graphic programs.</p>	<p>The Common Core Standard provides a more sophisticated expectation for the use of technology, recognizing its capacity to be used for collaborative and publishing purposes.</p>

**Grade 10 Eng. Language Arts  
Instructional Transition Guidance**

<p>W.7 Conduct short as well as more sustained research projects 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>	<p>10.4.6 Synthesize information from multiple sources. Identify complexities and inconsistencies in the information and the different perspectives found in each medium, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, and Internet sources.</p> <p>10.5.9 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:</p> <ul style="list-style-type: none"><li>• uses information from a variety of sources (books, technology, multimedia), distinguishes between primary and secondary documents, and documents sources independently by using a consistent format for citations.</li><li>• synthesizes information gathered from a variety of sources, including technology and one's own research, and evaluates information for its relevance to the research questions.</li><li>• demonstrates that information that has been gathered has been summarized, that the topic has been refined through this process, and that conclusions have been drawn from synthesizing information.</li><li>• demonstrates that sources have been evaluated for accuracy, bias, and credibility.</li><li>• organizes information by classifying, categorizing, and sequencing, and demonstrates the distinction between one's own ideas from the ideas of others, and includes a bibliography (Works Cited).</li></ul>	<p>The Common Core Standard includes many of the research skills found in the Indiana Academic Standards. Please see W.8 and W.9 to understand the full range of research skills students should develop.</p>
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**Grade 10 English Language Arts  
Instructional Transition Guidance**

W.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

10.4.4 Use clear research questions and suitable research methods, including texts, electronic resources, and personal interviews, to compile and present evidence from primary and secondary print or Internet sources.

10.4.6 Synthesize information from multiple sources. Identify complexities and inconsistencies in the information and the different perspectives found in each medium, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, and Internet sources.

10.4.7 Integrate quotations and citations into a written text while maintaining the flow of ideas.

10.4.8 Use appropriate conventions for documentation in text, notes, and bibliographies following the formats in different style manuals.

10.5.9 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that:

- uses information from a variety of sources (books, technology, multimedia), distinguishes between primary and secondary documents, and documents sources independently by using a consistent format for citations.
- synthesizes information gathered from a variety of sources, including technology and one's own research, and evaluates information for its relevance to the research questions.
- demonstrates that information that has been gathered has been summarized, that the topic has been refined through this process, and that conclusions have been drawn from synthesizing information.
- demonstrates that sources have been evaluated for accuracy, bias, and credibility.
- organizes information by classifying, categorizing, and sequencing, and demonstrates the distinction between one's own ideas from the ideas of others, and includes a bibliography (Works Cited).

The Common Core Standard includes many of the research skills found in the Indiana Academic Standards. Please see W.7 and W.9 to understand the full range of research skills students should develop.

**Grade 10 English Language Arts  
Instructional Transition Guidance**

<p>W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grades 9–10 Reading standards to literature (e.g., “Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]”).</p> <p>b. Apply grades 9–10 Reading standards to literary nonfiction (e.g., “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”).</p>	<p>10.4.5 Develop main ideas within the body of the composition through supporting evidence, such as scenarios, commonly held beliefs, hypotheses, and definitions.</p> <p>10.5.2 Write responses to literature that:</p> <ul style="list-style-type: none"> <li>• demonstrate a comprehensive grasp of the significant ideas of literary works.</li> <li>• support statements with evidence from the text.</li> <li>• demonstrate awareness of the author’s style and an appreciation of the effects created.</li> <li>• identify and assess the impact of ambiguities, nuances, and complexities within the text.</li> <li>• extend writing by changing mood, plot, characterization, or voice.</li> </ul>	<p>The Common Core Standard emphasizes the use of the Reading Standards for Literature and Reading Standards for Informational Text during the research process. In this case, students may be writing responses to literature as described in the Indiana Academic Standard. However, this Common Core Standard is appropriately included as part of the research cluster. Please see W.7 and W.8 to understand the full range of research skills students should develop.</p>
<p>W.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 tasks, purposes, and audiences.</p>	<p>10.5.8 Write for different purposes and audiences, adjusting tone, style, and voice as appropriate.</p>	<p>The Common Core Standard emphasizes discipline-specific tasks as well as extended and shorter time frames.</p>

**Additional Notes**

In addition to the Indiana Academic Standards included in the chart above, the following is also essential for adequately preparing students to be successful on the English 10 End-of-Course Assessment (ECA): **10.5.7**. Indiana Academic Standards **10.4.1**, **10.5.5**, and **10.5.6** should be assessed through in-class measures.

**Grade 10 English Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	Instructional Transition Guidance
Language Standards	Reading: Word Recognition, Fluency, and Vocabulary Development Writing: English Language Conventions	
<p>L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Use parallel structure.</p> <p>b. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.</p>	<p>10.6.1 Identify and correctly use clauses, both main and subordinate; phrases, including gerund, infinitive, and participial; and the mechanics of punctuation, such as semicolons, colons, ellipses, and hyphens.</p> <p>10.6.2 Demonstrate an understanding of sentence construction, including parallel structure, subordination, and the proper placement of modifiers, and proper English usage, including the use of consistent verb tenses.</p>	<p>The Common Core Standard and the Indiana Academic Standards are a good match. While the terminology in the Common Core Standard is slightly different, similar concepts are emphasized in both sets of standards. <i>Note</i> : The use of an ellipsis is taught in the eighth grade (8.L.2.b) in the Common Core Standards while the proper use of hyphens is taught in eleventh and twelfth grade (11-12.L.2.a).</p>
<p>L.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.</p> <p>b. Use a colon to introduce a list or quotation.</p> <p>c. Spell correctly.</p>	<p>10.6.3 Produce legible work that shows accurate spelling and correct use of the conventions of punctuation and capitalization.</p> <p>10.6.1 Identify and correctly use clauses, both main and subordinate; phrases, including gerund, infinitive, and participial; and the mechanics of punctuation, such as semicolons, colons, ellipses, and hyphens.</p>	<p>The Common Core Standard and the Indiana Academic Standards are an excellent match. The Common Core Standard includes specific contexts for the use of semicolons and colons.</p>

**Grade 10 Eng. Language Arts  
Instructional Transition Guidance**

<p>L.3 Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.</p> <p>a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., MLA Handbook, Turabian’s Manual for Writers) appropriate for the discipline and writing type.</p>	<p>10.6.4 Apply appropriate manuscript conventions — including title page presentation, pagination, spacing, and margins — and integration of source and support material by citing sources within the text, using direct quotations, and paraphrasing.</p>	<p>The Common Core Standard and the Indiana Academic Standard are only a partial match. While both attend to editing and style guidelines, the Common Core Standard requires students to understand how language functions in different contexts in order to make effective choices for meaning or style.</p>
<p>L.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9–10 reading and content, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</p> <p>b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy).</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, its part of speech, or its etymology.</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>10.1.2 Distinguish between what words mean literally and what they imply, and interpret what words imply.</p>	<p>The Common Core Standard and the Indiana Academic Standard are a poor match. At this grade level, the majority of the skills emphasized in the Common Core Standard are <b>NEW!</b> The Indiana Academic Standard refers to some of these concepts in earlier grade levels (e.g., using context as a clue to the meaning of a word or phrase), but the Common Core Standard insists that students continue to develop sophistication with these skills with increasingly complex text.</p>

**Grade 10 English Language Arts  
Instructional Transition Guidance**

<p>L.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.</p> <p>b. Analyze nuances in the meaning of words with similar denotations.</p>	<p>10.1.4 Identify and use the literal and figurative meanings of words and understand origins of words.</p>	<p>The Common Core Standard requires students to attend to nuances in word meanings as well as the specific concepts of euphemism and oxymoron.</p>
<p>L.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>	<p>Standard 1 - Reading: Word Recognition, Fluency, and Vocabulary Development</p>	<p>While the expectations of this Common Core Standard are not new, there is a more explicit requirement that students acquire and use grade-appropriate academic and domain-specific words and phrases.</p> <p><u>For more information about language and vocabulary instruction, please see Appendix A.</u></p>

**Additional Notes**

Indiana Academic Standards **10.1.1** and **10.1.3** should be assessed through in-class measures.

**Grade 10 Engl. Language Arts  
Instructional Transition Guidance**

Common Core Standards	Indiana Academic Standards	
Speaking and Listening Standards	Listening and Speaking: Skills, Strategies, and Applications	Instructional Transition Guidance
<p>SL.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.</p> <p>c. 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.</p>		<p>Since the Indiana Academic Standards for Listening and Speaking are not currently assessed on the English 10 End-of-Course Assessment (ECA), educators and students should implement the Common Core Standards for Speaking and Listening as soon as possible.</p>

**Grade 10 English Language Arts  
Instructional Transition Guidance**

<p>d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.</p>		
<p>SL.2 Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.</p>		
<p>SL.3 Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.</p>		
<p>SL.4 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.</p>		<p>The Common Core Standards for Speaking and Listening describe rigorous expectations for academic discussion, meaningful exchanges between students and educators, and the thoughtful delivery of information, conveying competencies in both rhetoric and multimedia content integration.</p>
<p>SL.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.</p>		
<p>SL.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.</p>		



**Indiana  
Department of Education**

**Glenda Ritz, NBCT**  
Indiana Superintendent of Public Instruction

**Indiana Department of Education**  
**Evaluation of the Common Core State Standards**  
**(CCSS)**

**June 29, 2013**

### Authority for this Evaluation

In pertinent part, Section 13 of House Enrolled Act 1427 requires the Indiana Department of Education to do the following:

*(e) Before July 1, 2013, the department shall provide a written evaluation of the common core standards to the:*

*(1) governor;*

*(2) legislative council;*

*(3) state board; and*

*(4) chairperson of the legislative study committee established in subsection (f).*

*The evaluation must be provided in an electronic format as provided under IC 5-14-6.*

The submission of this electronic document to the aforementioned parties is intended to satisfy this requirement.

## Current Reality

The Indiana Department of Education (IDOE), the State Board of Education (SBOE), and the Indiana General Assembly have affirmed that Indiana's standards must be deemed college and career ready. House Enrolled Act 1427(c) requires members of the State Board of Education to "...adopt college and career ready educational standards..." by July 1, 2014. That subsection of law also specifies that the new standards "...must meet national and international benchmarks for college and career readiness standards and be aligned with postsecondary educational expectations."

According to the Indiana Commission for Higher Education, nearly 1/3 of all 2011 high school graduates attending postsecondary schools in Indiana required costly remediation.<sup>1</sup>

In 2004, Indiana University's Center for Evaluation & Education Policy issued a brief highlighting the need for high school redesign to ensure students are academically prepared for the workforce as well as for college level academic content.<sup>2</sup>

We know that Indiana's jobs of today and tomorrow require postsecondary education and training more than ever. Nearly two-thirds of all new jobs require at least some postsecondary education.<sup>3</sup> In the past, workers could obtain high paying jobs without higher education. This has become more of an exception than a rule. Without sufficient preparation, Hoosier students will struggle to access good jobs in the increasingly competitive global economy. Indiana's international standing in its percentage of adults aged 25-64 possessing an Associate degree or higher, leaves plenty room for growth. Only 33 percent of our population holds a two-year degree or more.

<sup>1</sup> Indiana Commission for Higher Education, "Indiana College Readiness Report" (2013).

<http://www.in.gov/che/files/StateofIndiana.pdf>

<sup>2</sup> [http://ceep.indiana.edu/projects/PDF/Re-designing\\_HS\\_PB.pdf](http://ceep.indiana.edu/projects/PDF/Re-designing_HS_PB.pdf).

<sup>3</sup> Indiana Commission for Higher Education "Reaching Higher Overview" (2012).  
[http://www.in.gov/che/files/2012\\_RHAM\\_8\\_23\\_12.pdf](http://www.in.gov/che/files/2012_RHAM_8_23_12.pdf).

## Key Definitions

- **Standards** – Standards specify what students across the state should know and be able to demonstrate at each grade level. Standards are ultimately recommended by the Indiana Education Roundtable and adopted by the Indiana State Board of Education. *Standards do not dictate how teachers teach.*
- **Curriculum** – Curriculum is a prescribed learning plan toward educational goals that includes instructional content, resources and materials, and a means by which to measure attainment. Curriculum is determined locally by a corporation or school.
- **Instruction** – Instruction is the act, practice, or process of structured knowledge transfer from teacher to student. Instruction is determined locally at the corporation or school level. *Instruction is how teachers teach.*
- **College- and Career-Ready Standards** – The U.S. Department of Education defines college- and career-ready standards as "Content standards for kindergarten through 12th grade that build towards college- and career-ready graduation requirements by the time of high school graduation. A State's college- and career-ready standards must be either (1) standards that are common to a significant number of States, or (2) standards that are approved by a State network of institutions of higher education, which must certify that students who meet the standards will not need remedial coursework at the time of enrollment in college."

## **Adoption of the Common Core State Standards: Indiana's Process**

The Common Core State Standards (CCSS) are a particular set of K-12 standards in English/language arts and mathematics resulting from the Common Core State Standards Initiative (CCSSI). The CCSS are copyrighted. They delineate what students should know at each grade level, and they describe skills students must acquire to stay on course each year for college and career readiness.

Indiana joined the CCSSI in June of 2009, launching the IDOE's 19-month analysis of the standards with the help of educators across the state. Upon review and recommendation by the Indiana Education Roundtable, the State Board of Education officially adopted the Common Core State Standards in English/language arts, literacy and mathematics as Indiana's standards in August of 2010.

The U.S. Department of Education has deemed the CCSS to be college and career ready. The federal Elementary and Secondary Education Act of 2001 (No Child Left Behind) includes "standards" (Sec. 1111, a) as a component of the State Plan, under which are subject to secretarial approval and peer review (Sec. 1111, e).

In November of 2007, discussions on the virtues of common college- and career-ready standards began between state education leaders at the Annual Policy Forum for the Council for Chief State School Officers (CCSSO). With the help of the country's leading national experts and educators in the content areas of English/language arts and literacy and mathematics, CCSSO and the National Governor's Association (NGA) coordinated a multi-state effort formally known as the Common Core State Standards Initiative (CCSSI). The objective of this multi-state initiative was to identify what students should know and demonstrate to be deemed college and career ready.

This work culminated in the release of the Common Core State Standards (CCSS) for mathematics and English/language arts and literacy in 2010. Since then, 45 states (including Indiana), the District of Columbia, and three territories have adopted the standards. The Common Core State Standards in these subjects are currently Indiana's standards, having been reviewed and recommended by the Indiana Education Roundtable and formally adopted by the Indiana State Board of Education in August of 2010. As a set of standards – not a curriculum – corporations and schools are left to determine locally what curriculum, instruction, and instructional materials to use in teaching the CCSS.

All teachers are teaching CCSS, and teachers in grades 2-12 are also teaching some identified Indiana Academic Standards in order to assure alignment of standards with our ISTEP+ assessment during a period of transition. Schools across Indiana began implementing the CCSS in kindergarten classrooms during the 2011-2012 school year. Since then, educators and administrators have worked toward teaching only CCSS in these subjects in all grades by the 2014-2015 school year.

Schools have made investments in textbooks, electronic content, and instructional materials aligned to the CCSS. Teachers and administrators have acquired professional development on the new standards, and made significant instructional shifts in teaching.

The following timeline identifies the steps the IDOE took towards adoption and implementation of the CCSS.

#### **June 2009**

- ✓ Indiana joined the CCSSO initiative of governors and state commissioners/state superintendents of education in 48 states (Texas and Alaska did not participate) to create a common, college- and career-ready set of academic standards for mathematics and English/language arts that could be utilized by any state.

#### **October 2009 – January 2010**

- ✓ IDOE worked with Indiana educators to create a comparison, by grade, of Indiana Academic Standards and the first draft of the CCSS for English/language arts and math.

#### **January and February 2010**

- ✓ IDOE staff reviewed and provided two rounds of feedback on the draft standards to CCSSO. Indiana's specific feedback can be found in the January memo and February memo. These memos were distributed via the IDOE's SAMS/PAMS e-blast to Indiana superintendents and principals.
- ✓ Indiana's Academic Standards were used as exemplars for the drafting of common core standards, and members of IDOE staff were consulted throughout the drafting process.

#### **February 2010**

- ✓ IDOE staff released a frequently-asked-questions document (FAQ) on the department's public website regarding CCSS.

#### **March 2010**

- ✓ Indiana's 11-member State Board of Education (SBOE) reviewed a CCSS update. The SBOE March 3, 2010 meeting minutes are provided here.
- ✓ In preparing members of the Indiana Education Roundtable (IER) for their consideration of whether to recommend the adoption of the Common Core Standards, the IDOE staff briefed members of the Indiana Education Roundtable during the March 30, 2010 meeting. See the following documents:

Agenda <http://www.in.gov/edroundtable/files/Agenda100308.pdf>

Background

<http://www.in.gov/edroundtable/files/4-Common Core Background Materials 02.01.10.pdf>

PowerPoint

<http://www.in.gov/edroundtable/files/IN Common Core Curriculum Round Table PresentationT hurs pm.pdf>

Minutes <http://www.in.gov/edroundtable/files/7-RT minutes from March 30 2010-100518.pdf>

Indiana Code 20-31-3-5 expressly authorizes the Indiana Education Roundtable to recommend the adoption of new state standards.

- ✓ CCSSO released the draft K-12 standards for public comment on March 10, 2010. Hoosiers submitted 165 comments during this period. These comments were used in place of an IDOE/public review-led period.
- ✓ IDOE convened a team of educators from K-12 and higher education to review the revised draft standards and provide a third round of feedback to CCSSO on strengths and weaknesses. See the March memo.

#### **April 2010**

- ✓ Indiana's SBOE announced it would vote on adoption of the CCSS in August of 2010. Indiana Code 20-31-3-1 expressly authorizes the SBOE to adopt academic standards for each grade level, K-12.

#### **May 2010**

- ✓ The Superintendent of Public Instruction and IDOE staff worked on additional improvements to the CCSS, and launched a survey of content and rigor shifts required by the Common Core Standards in math.

#### **June 2010**

- ✓ The Superintendent of Public Instruction noted during the SBOE meeting that the National Governor's Association and the Council of Chief State School Officers would release the final version of the CCSS after review of nearly 10,000 comments from states across the country, including Indiana.
- ✓ IDOE staff created toolboxes for the CCSS, by grade, for math and English/language arts.

#### **July 2010**

- ✓ A subsequent analysis was completed by IDOE for the final released CCSS documents using materials provided by Achieve, Inc.,<sup>4</sup> and the results of this analysis were presented to members of the Education Roundtable and the State Board of Education to assist with each body's respective decisions on adoption of the common core standards.
- ✓ IDOE mathematics and English/language arts specialists were invited to provide an in-depth content analysis of the CCSS, using the Surveys of Enacted Curriculum.
- ✓ Indiana's State Superintendent of Public Instruction selected a professional cabinet of 60 educators to develop grade-specific curriculum maps.

#### **August 2010**

- ✓ The Indiana Education Roundtable recommended the adoption of the CCSS.
- ✓ IDOE staff presented a final overview of the CCSS to the members of the SBOE.
- ✓ The SBOE voted unanimously to adopt the CCSS as Indiana's standards for mathematics, English/language arts and grades 6-12 literacy for social studies, history, science and technical subjects.

#### **December 2010**

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<sup>4</sup> For more information, please visit Achieve's website at <http://www.achieve.org/>.

- ✓ Indiana became the first state in the nation to align its teacher preparation standards with the CCSS and to require colleges to incorporate these standards into their pre-service preparation programs. The then-Indiana Professional Standards Advisory Board, in conjunction with the IDOE, approved the new developmental and content standards for educators. Educators from K-12 and higher education participated in the development of the new teacher preparation standards.

### **School Year 2011-2012 – School Year 2012-2013**

- ✓ Transitioning from one set of standards to another requires a great deal of planning and communication to educators, administrators, and families to ensure a smooth transition. The IDOE provided maps, guidance, tools, professional development, and resources to ensure an effective transition from IAS math and E/LA standards to the commensurate CCSS standards. Transitioning to new standards also has a ripple effect on school communities. Curricula, lesson plans, professional development, textbooks, electronic content and instructional materials, locally-developed tests, report cards, and statewide assessments are all linked to standards. For grade-by-grade guidance in English/language arts and mathematics, go to the IDOE's web-page found at:  
<http://www.doe.in.gov/achievement/curriculum/resources-implementing-indianas-common-core-standards>.

### **Implementing HEA 1427**

#### **May – June 2013**

- ✓ The IDOE has already begun its work to implement HEA 1427. The guidance, <http://www.doe.in.gov/sites/default/files/curriculum/2013-2014-standards-guidance-implementation-guide.pdf>, to schools for the 2013-2014 school year regarding HEA 1427 relating to Common Core State Standards.
- ✓ The IDOE has held three math summits across the state to begin dialogue on math standards, instruction, assessment, use of technology, delivery systems, earned credits, and teacher preparation & professional development – Plymouth (6/17), Huntingburg (6/20), and Indianapolis (6/27).

#### **July 2013 – July 2014**

The IDOE is committed to adhering to requirements of HEA 1427, and [IC 20-31-3](#) regarding the adoption of college- and career-ready standards. The IDOE intends to act as a full partner in helping move forward the following:

- ✓ The IDOE will work with the Office of Management and Budget to help prepare the fiscal impact statement due September 1, 2013 (per HEA 1427).
- ✓ State Superintendent Glenda Ritz will appoint an academic standards committee in math prior to October 1, 2013.
- ✓ State Superintendent Glenda Ritz will appoint an academic standards committee in English/language arts prior to October 1, 2013.
- ✓ The IDOE will participate in educational standards hearings held by the Legislative Study Committee by November 1, 2013 (per HEA 1427).
- ✓ The IDOE will hold an electronic public review of proposed standards.
- ✓ The IDOE will assist the SBOE in conducting three (3) required public meetings regarding educational standards (per HEA 1427).

- ✓ The IDOE and the academic standards committees will submit recommendations on college- and career-ready standards to the Indiana Education Roundtable.
- ✓ The Indiana Education Roundtable will make recommendations regarding college- and career-ready standards to the State Board of Education.
- ✓ The State Board of Education will adopt college- and career-ready standards by July 1, 2014.

IDOE looks forward to engaging in rich dialogue with the citizens of Indiana regarding college- and career-ready standards that will help enable Indiana's students to be internationally competitive. The IDOE recognizes that it is not the sole actor in this matter, and that state standards are not developed, approved and implemented by the department alone. Rather, standards come about through collaboration among the IDOE, the public, educators from pre-K through postsecondary, the Education Roundtable and the State Board of Education.

## **Additional Resources**

Common Core State Standards –

<https://learningconnection.doe.in.gov/Standards/PrintLibrary.aspx>

Common Core State Standards Appendix A (Grade Level Appropriate Text/Text Complexity) –

[http://www.corestandards.org/assets/Appendix\\_A.pdf](http://www.corestandards.org/assets/Appendix_A.pdf)

Common Core State Standards Appendix B (Grade Level Appropriate Text/Text Complexity) –

[http://www.corestandards.org/assets/Appendix\\_B.pdf](http://www.corestandards.org/assets/Appendix_B.pdf)

Common Core State Standards Appendix C (Writing) –

[http://www.corestandards.org/assets/Appendix\\_C.pdf](http://www.corestandards.org/assets/Appendix_C.pdf)

Common Core State Standards Initiative - <http://www.corestandards.org/>

Comparison tables created by the IDOE comparing CCSS, IAS and international

English/language arts: <http://www.doe.in.gov/sites/default/files/curriculum/ela-standards-overview-page.pdf> and math: <http://www.doe.in.gov/sites/default/files/curriculum/math-standards-overview.pdf> standards

Elementary and Secondary Education Act of 2001 (No Child Left Behind) -

<http://www2.ed.gov/nclb/landing.jhtml>

IDOE documents regarding Common Core State Standards -

<http://www.doe.in.gov/achievement/curriculum/resources-implementing-indianas-common-core-standards>

Indiana's Academic Standards -

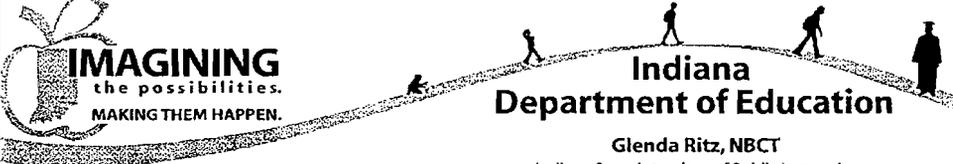
<https://learningconnection.doe.in.gov/Standards/PrintLibrary.aspx>

Indiana State Reading List (Grade Level Appropriate Text) –

<https://learningconnection.doe.in.gov/Standards/PrintLibrary.aspx>

TIMSS Framework -

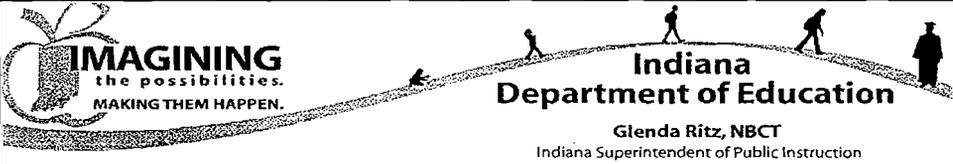
[http://timssandpirls.bc.edu/timss2011/downloads/TIMSS2011\\_Frameworks-Chapter1.pdf](http://timssandpirls.bc.edu/timss2011/downloads/TIMSS2011_Frameworks-Chapter1.pdf)



**Indiana  
Department of Education**  
Glenda Ritz, NBCT  
Indiana Superintendent of Public Instruction

**Interim Study Commission on Common Core  
Educational Standards**

**August 5, 2013**



**Indiana  
Department of Education**  
Glenda Ritz, NBCT  
Indiana Superintendent of Public Instruction

**Definitions**

**Standards** - Standards specify what students across the state should know and be able to demonstrate at each grade level. Standards are ultimately recommended by the Indiana Education Roundtable and adopted by the Indiana State Board of Education. *Standards do not dictate how teachers teach.*

**Curriculum** – Curriculum is a prescribed learning plan toward educational goals that includes instructional content, resources and materials, and a means by which to measure attainment. Curriculum is determined locally by a corporation or school.

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1. standards that are common to a significant number of States; or
2. standards that are approved by a State network of institutions of higher education, which must certify that students who meet the standards will not need remedial course work at the postsecondary level.”



**Indiana  
Department of Education**  
Glenda Ritz, NBCT  
Indiana Superintendent of Public Instruction

The IDOE, the General Assembly, the Governor, and the State Board of Education are committed to ensuring our students have college- and career-ready standards.

SBOE resolution:  
*The State Board of Education is committed to participating in the comprehensive and open/transparent review process of the standards, resulting in the Board fulfilling its obligation to adopt College- and Career-Ready standards by July 1, 2014.*




**Indiana  
Department of Education**

Glenda Ritz, NBCT  
Indiana Superintendent of Public Instruction

## What teachers are teaching 2013-14

Indiana teachers are teaching the Indiana Common Core State Standards adopted in 2010. In addition, teachers in grades 2-12 are also teaching some identified Indiana Academic Standards indicators to align with our ISTEP+ assessment.

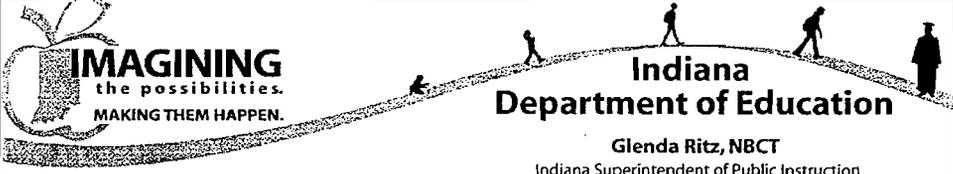



**Indiana  
Department of Education**

Glenda Ritz, NBCT  
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## Evaluating the Standards...

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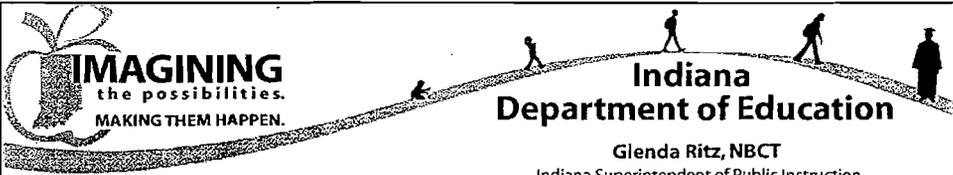
**IMAGINING**  
the possibilities.  
MAKING THEM HAPPEN.

**Indiana**  
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## Evaluating the Standards...

- The IDOE and the academic standards committees will submit recommendations on college- and career-ready standards to the Indiana Education Roundtable.
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# PIONEER INSTITUTE

PUBLIC POLICY RESEARCH

## Testimony to the Interim Study Committee on Common Core Educational Standards

Monday, August 5, 2013

James Stergios

*Executive Director, Pioneer Institute, Boston, MA*

I am grateful to the co-Chairs of the Committee, Senator Dennis Kruse and Representative Robert Behning, for the opportunity to provide testimony this afternoon.

My name is James Stergios, executive director of the Boston-based think tank, Pioneer Institute. Pioneer Institute has produced the most analytic work on the Common Core in the country, with multiple peer reviewed published reports on their relative quality, cost, and legality. In doing this work we have taken no funding from interested parties, and we have commissioned the reports from the most highly qualified scholars and experts in the country.

Like you, the Institute cares deeply about our children and this country's future. We want to prepare our students to compete internationally and to be citizens in a free society characterized by strong local, state and federal institutions. In its 25-year history, the Institute has been associated with most of the key reforms that have taken the Commonwealth of Massachusetts from an above average jurisdiction to the top-performing state in the country, and to be counted among the top 6 countries in the world in math and science. These reforms included the highest academic standards in the country, strong accountability for teachers and students, and choice, including the highest performing public charter schools in the country.

My testimony presents five concerns about the Common Core national standards and assessments, which are fully derived from empirical analysis:

1. Proponents of Common Core misrepresent them as "state-led."
  2. The promotion of national standards and assessments by the federal government is illegal.
  3. Common Core constitutes a very large unfunded mandate on states and localities.
  4. The Common Core standards are of mediocre quality, aiming for non-selective state and community college-readiness.
  5. The implementation of national standards and assessments limits Indiana's ability to innovate and its commitment to true school choice.
- 
1. **Those who will stand before you today calling the Common Core Standards "state-led" misunderstand the transparency, effort and public deliberation associated with the adoption of state academic standards.**

In Massachusetts, public consideration of our state standards in the late 1990s and early 2000s included drafts developed after extensive parent, teacher, scholarly and business input; extensive public comment periods; public hearings; extensive revisions, which were again put out for public comment. The development of standards and tests was on the front pages of our newspapers for years. As a result, parents and teachers had an opportunity to follow and participate in the debate; they saw the controversies; and they could ultimately feel ownership of some very difficult and far-reaching reforms.

No such settlement is possible in the case of the Common Core standards. Why? No remotely comparable process was employed during the development of the national standards.

A “state-led” process does not mean that a few state education bureaucrats attended meetings in Washington, D.C, perhaps to the offices of one of the two nonprofits holding the copyright on Common Core.

It is well-known that those developing Common Core standards did so without broad public involvement, or meaningful public comment. There were no public hearings as the drafts moved along – Indiana parents, teachers, and scholars were absent from the proceedings. A highly telescoped schedule ensured that few people (or frankly even legislators) knew Common Core existed in 2010.

If that is proponents’ idea of a state-led process, they do not understand or value public processes and the public trust, which are cornerstones of representative democracy. The vision of Common Core proponents is a top-down, technocratic one, wherein parents, teachers, and local business and community leaders play little role in the important decisions affecting children of a state.

## **2. The promotion of national standards and assessments by the federal government is illegal.**

The General Education Provisions Act of 1965, the Department of Education Organization of 1979, and the ESEA, as amended by the No Child Left Behind Act in 2001 (NCLB) “ban federal departments and agencies from directing, supervising, or controlling elementary and secondary school curriculum, programs of instruction, and instructional materials. The ESEA also protects state prerogatives on Title I content and achievement standards.”

That’s what two of the top lawyers for the US Department of Education (USED), former Department General Counsel Kent Talbert and Deputy General Counsel Robert Eitel write in a paper entitled *The Road to a National Curriculum*.

It is worth underscoring that these federal bans were originally signed into law by Presidents Lyndon Johnson and Jimmy Carter. Thus, proponents of Common Core are suggesting a path that even these two presidents rejected as a bridge too far.

Distinguished attorneys Talbert and Eitel go so far as to say that USED is likely violating the aforementioned federal restrictions because:

1. Starting in 2010, the federal education department used discretionary Race to the Top grants to herd state education authorities into adopting national standards and tests. A later 2012 round of Race to the Top grants was created for school districts, and included the promotion of Common Core.
2. The conditional waivers to NCLB offered by U.S. Secretary of Education Arne Duncan have never been approved by Congress. Past secretaries of the federal department of education have granted waivers, but never with a unilateral and material assertion of policy that is contradicted by existing federal law.

3. The two consortia receiving over \$300 million in federal funds include in their funding applications explicit recognition that they would develop curricular materials and instructional practice guides.
4. The federal Department of Education has created a technical-review process for the two state consortia that are designing assessments for the common standards.
5. The federal Department of Education has criticized states that have sought to exit Common Core and national tests.

Noted journalist George Will cited Pioneer's work on the legal dimensions of Common Core in a *Washington Post* column, with the following words,

*As government becomes bigger, it becomes more lawless. As the regulatory state's micromanagement of society metastasizes, inconvenient laws are construed — by those the laws are supposed to restrain — as porous and permissive, enabling the executive branch to render them nullities.*

### **3. Significant new costs are projected in order to implement Common Core and an associated national assessment; and these costs will be borne by states and localities.**

The fact is that before Pioneer initiated a study over a year ago, the cost of Common Core was unknown. That is remarkable to consider: A new set of policies affecting 50 million schoolchildren around the US and no cost estimate was performed. In just the last two months we have seen numerous states reconsider their participation in national tests because of the cost impacts. As they pull out, the consortia will be forced to raise the cost estimates for the tests.

Pioneer commissioned a former USED official and national expert on assessments to provide a detailed cost estimate for implementation of Common Core. Pioneer's analysis is a mid-range estimate that is based on empirical analysis and covers only basic implementation. The costs to states and localities will sum to at least \$15.8 billion and will largely be driven by four items:

- \$1.2 billion for new assessments
- \$5.3 billion for professional development
- \$2.5 billion for new textbooks
- \$6.9 billion for technology

A second analysis emerged from a D.C.-based research outfit that is significantly funded by the Gates Foundation, a major philanthropic supporter of Common Core. This research from the Thomas B. Fordham Institute reaches a lower cost figure for implementation by conveniently (and inexplicably) omitting technology costs, a major cost center for states implementing common standards and tests.

Two additional points are worth making on cost. First, states will pay for the implementation of Common Core and the tests. States and localities provide 90 percent of education funding, and that will hold true for Common Core-related activities. (Race to the Top grants have only funded a small part of the initial Common Core implementation.) Second, there is considerable uncertainty around the future costs of testing – and signs that the costs may be much higher than suggested in our analysis. For example, the costs associated with the PARCC assessment may be significantly impacted by the consortium's loss of numerous state participants.

### **4. The quality of the Common Core is mediocre and aims for community college readiness.**

Pioneer Institute conducted four independent evaluations of the national standards, comparing them to states that have or had high standards. In every case, experts found Common Core to be of lower quality. The Common Core English Language Arts standards suffer from many technical shortcomings, such as their lack of coherent grade-by-grade progressions through high school. But the problems are larger than that. As Dr. Stotsky has noted elsewhere:

*“Common Core’s standards for English language arts are neither research-based nor internationally benchmarked... To judge from my own research on the language and literature requirements for a high school diploma..., Common Core’s ELA standards fall far below what other English-speaking nations or regions require of college-intending high school graduates.”*

In fact, that is the main reason that Stotsky and four other members of the Common Core Validation Committee declined to sign off on Common Core’s standards. Having led the effort in Massachusetts to set the highest quality academic standards, Dr. Stotsky was unwilling to sign off on far weaker Common Core standards for the country.

It is important to note that there is no evidence to support the idea, embedded in Common Core, that having English teachers teach more information reading (or literary nonfiction) and less literary reading will lead to greater college readiness. Massachusetts’ remarkable rise on national assessments is not because we aligned our reading standards to the NAEP. Rather, it is because, unlike Common Core, our reading standards emphasized high-quality literature. Reading literature requires the acquisition in a compressed timeframe of a richer and broader vocabulary than non-fiction texts. Vocabulary acquisition is all-important in the timely development of higher-level reading skills.

Common Core also misunderstands the training of our teacher corps. English teachers are trained not to teach Federal Bank reports, or computer and other manuals. They are people steeped in the love of language and literature. Asking an English teacher to teach one of Microsoft’s software development manuals is really not going to work out well.

Common Core’s math standards also suffer from a lack of coherent grade-by-grade progressions, but they too have deeper problems concerning Algebra I, Geometry and other aspects of topics. Given that nationally recognized Stanford mathematics Professor James Milgram will be testifying, I will limit comment on this area of the Core to the following observation:

Jason Zimba, lead writer of Common Core’s mathematics standards, admitted at a meeting of the Massachusetts Board of Elementary and Secondary Education that passing a college readiness test in mathematics will mean that students in Indiana and Massachusetts will only be qualified to enroll in a non-selective community or state college.

Assurances from proponents of national standards each state can add whatever it wants to the national standards is meaningless because Common Core requires that states adopt the standards verbatim, limiting state flexibility to 15 percent of the Core. However, given that national assessments will not cover that additional material, no districts and no teachers will end up teaching the add-ons.

##### **5. The impact of Common Core on school choice is a reason for concern.**

Indiana has shown itself to be a national leader on expanding parental options, giving thousands of parents the opportunity to select the best learning environment for their children. As a strong supporter of market-based reforms and broader access to religious schools, I am concerned that Common Core will encroach upon key aspects of private school instruction and curriculum.

The United States is unique in its approach to private school vouchers, with funding coming in support of parental choice—not directly to private institutions. In European countries that allow public dollars to support private school choice, the funding usually flows directly to an institution. With that money come state mandates on curriculum and instruction.

Common Core threatens to drive private school choice programs toward a similar end. We have seen a trend, even here in Indiana, where some voucher and choice programs impose a requirement that the private school accepting voucher students must administer the state's curriculum-based test. That is, access to those funds is tied to administration of tests.

That is worrisome because Common Core-aligned tests are not the same as the traditional norm-referenced tests. The latter seek to be curriculum-neutral, admittedly with mixed success. Common Core tests, on the other hand, are not curriculum-neutral; instead, they are designed to drive curriculum and instruction.

Indiana, Louisiana and Ohio are all states that are tying vouchers and other financing vehicles to state curriculum-based testing.

What kind of choice are we giving parents if all of your choices teaching the same, or close to the same, curriculum? We cannot afford to see private schools lose autonomy over critical curricular and instructional questions.

**In closing**, it is worth noting that many states, such as Massachusetts, have seen huge student gains. Indiana has been a leader on so many fronts, including the advancement of parental choice, public charters, high standards, e-learning and more. Indiana's previous standards were already excellent, and by adopting Common Core and national tests you lose so much. You lose control over curricula and instruction. You lose money in the classroom by spending so much of it on Common Core. You lose the distinctions among many of your private schools.

Is community college readiness such a grand goal—a goal that is worthy of jettisoning our tradition of the rule of law, assuming unfunded mandates, and impairing the parental choice and education reform progress that Indiana has so valiantly fought for?

Indiana can do better than that.

### *About Pioneer*

Pioneer Institute is an independent, non-partisan, privately funded research organization that seeks to improve the quality of life in Massachusetts through civic discourse and intellectually rigorous, data-driven public policy solutions based on free market principles, individual liberty and responsibility, and the ideal of effective, limited and accountable government.



CONFERENCE BOARD OF THE MATHEMATICAL SCIENCES  
1529 Eighteenth Street NW, Washington DC 20036

**Exhibit E**  
**Interim Study Comm. on Common**  
**Core Educational Standards**  
**Meeting #1, 8/5/2013**

Telephone: 202-293-1170  
rosier@georgetown.edu  
kolbe.lisa@gmail.com  
www.cbmsweb.org

**Common Core State Standards for Mathematics**  
**Statement by Presidents of CBMS Member Professional Societies**

In a great act of foresight for this nation, most of the states have now adopted a consistent set of expectations for school mathematics, called the Common Core State Standards. Building on long years of work, the Common Core State Standards are an auspicious advance in mathematics education. They define the mathematical knowledge and skill that students need in order to be ready for college and career, and provide the basis for a curriculum that is focused and coherent. If properly implemented, these rigorous new standards hold the promise of elevating the mathematical knowledge and skill of every young American to levels competitive with the best in the world, of preparing our college entrants to undertake advanced work in the mathematical sciences, and of readying the next generation for the jobs their world will demand. Much remains to be done to implement the standards, in curriculum, assessment, and teacher education. But we now have, for the first time in our history, a common blueprint for this work across state lines. This is not the time to turn away from our good fortune. We, the undersigned presidents of the following member societies of CBMS, hereby express our strong support for the Common Core State Standards for Mathematics.

James Roznowski  
American Mathematical Association  
of Two Year Colleges

Hans Kuensch  
Institute of Mathematical Statistics

David Vogan  
American Mathematical Society

Robert Devaney  
Mathematical Association of America

Marie Davidian  
American Statistical Association

Nathaniel Dean  
National Association of Mathematicians

Alasdair Urquhart  
Association for Symbolic Logic

Valerie Mills  
National Council of Supervisors of Mathematics

Ruth Charney  
Association for Women in Mathematics

Linda Gojak  
National Council of Teachers of Mathematics

Fran Arbaugh  
Association of Mathematics Teacher Educators

Irene Fonseca  
Society for Industrial and Applied Mathematics

Diana Kasbaum  
Association of State Supervisors of Mathematics

Don Balka  
TODOS: Mathematics for ALL

Vanessa Cleaver  
Benjamin Banneker Association

*Embargoed for release:  
Wednesday, June 2, 2010, at 10 AM Eastern*

## **Statement by National Higher Education Organizations on the Release of the Common Core State Standards**

As organizations representing the leadership and faculty of America's colleges and universities, we recognize the enormous promise the Common Core State Standards released today hold to help all students graduate from high school ready to succeed in postsecondary education. We believe the completion of these standards represents an important step toward realizing President Obama's goal of making the United States the world's leader in educational attainment and are grateful to the governors and chief state school officers for their leadership in making these standards a reality.

The higher education community has played an important role in shaping these standards. It must continue to be fully engaged as states and tribal governments move forward to adopt and implement the standards and as assessments are designed to measure student progress. In particular, higher education will have an essential role to play in preparing teachers to help students reach these standards and in ensuring that assessments provide students, parents and teachers with an accurate indication of students' progress toward college readiness. We stand ready to work closely with our colleagues in elementary/secondary education on this groundbreaking work.

We congratulate the National Governors Association, the Council of Chief State School Officers and all the other organizations that have worked so hard to realize the long-held goal of creating common college- and career-ready standards for America's schools and look forward to working together on this important national agenda.

The following organizations have endorsed this statement:

ACPA - College Student Educators International  
ACT, Inc.  
American Association of Colleges for Teachers Education  
American Association of Colleges of Nursing  
American Association of Community Colleges  
American Association of State Colleges and Universities  
American Council on Education  
American Dental Association  
Association of Community College Trustees  
Association of Governing Boards  
Association of Public and Land-grant Universities  
College and University Professional Association for Human Resources (CUPA-HR)  
Council for Christian Colleges and Universities  
Council for Opportunity in Education  
Council of Graduate Schools  
EDUCAUSE  
Hispanic Association of Colleges and Universities

National Association for College Admissions Counseling  
National Association of College and University Business Officers  
National Association of Student Personnel Administrators  
National Collegiate Athletic Association  
The College Board  
University Professional & Continuing Education Association (UPCEA)

## BUSINESS SIGN-ON LETTER IN SUPPORT OF THE COMMON CORE STATE STANDARDS

As companies and business organizations, we believe that it is imperative that ALL American students have access to an education that will prepare them for the opportunities and challenges they will face after high school. In a competitive world economy where education and/or training after high school is increasingly the norm for access to good jobs, to prepare students for anything less is, by definition, to deny opportunity.

Unfortunately, today, too few high school students graduate and, among those who do, too few graduate well-prepared for life after high school. In order to prepare today's students for the challenging world they will encounter, it is critical that we set the right expectations. For this reason, we believe states need to have K-12 standards that will prepare all students by the end of high school for success in college and careers.

Currently, each state sets its own standards. This has led to a nation with 50 sets of inconsistent standards, even though the expectations of colleges and employers in math and English are nearly universal and are not bound by state lines.

We believe that the Common Core State Standards Initiative, led by the National Governors Association Center for Best Practices and Council of Chief State School Officers, has produced K-12 standards in the foundational subjects of math and English that meet the business community's expectations: they are college- and career-ready, grounded in evidence and internationally-benchmarked. We, the undersigned companies and organizations, support the adoption of the Common Core State Standards by the states.

The Common Core State Standards are an important opportunity to set consistent, focused, rigorous expectations for all students; a necessary foundation for making the changes needed to improve student achievement and ensure the United States' educational and economic preeminence.

### SUPPORTING ORGANIZATIONS (BY ORGANIZATION NAME, ALPHABETICALLY)

Accenture  
ACT, Inc.  
AdvanceED  
Advance Illinois  
Aetna  
Association of American Publishers  
BAE Systems  
Battelle  
Berkshire County Regional Employment Board, Inc.  
The Boeing Company  
Business Coalition for Student Achievement  
The Business Coalition for Educational Excellence at the New Jersey Chamber of Commerce  
The Business Council of New York State, Inc.

Business-Higher Education Forum  
Business Roundtable  
Dell Inc.  
Eastman Chemical Company  
Eastman Kodak Company  
Evans Newton Incorporated  
Georgia Chamber of Commerce  
Georgia Partnership for Excellence in Education  
GlaxoSmithKline  
Greater Oklahoma City Chamber  
Greater Phoenix Leadership  
Greater Raleigh Chamber of Commerce  
Greenville Chamber of Commerce, Greenville, SC  
Harper Industries, Inc.

Hawaii Business Roundtable  
IBM Corporation  
Illinois Business Roundtable  
Illinois Quad City Chamber of Commerce  
Indiana Chamber of Commerce  
ING  
Intel Corporation  
Jacksonville Regional Chamber of  
Commerce  
Knoxville Chamber  
Laurinburg/Scotland County Area Chamber,  
Laurinburg, NC  
MetaMetrics  
Microsoft  
Nashville Area Chamber of Commerce  
National Association of Manufacturers  
Nebraska Chamber of Commerce & Industry  
Nevada Manufacturers Association, Carson  
City, Nevada  
New Mexico Business Roundtable  
Ohio Business Roundtable  
Partnership for 21st Century Skills

Partnership for New York City  
Pennsylvania Business Council  
Qualprint  
Rochester Area Chamber of Commerce,  
Rochester, Minnesota  
Rockwell Automation  
Rockwell Collins  
Rodel Charitable Foundation of Arizona  
SAS Institute, Inc.  
Software & Information Industry  
Association  
State Farm Insurance  
Tennessee Business Roundtable  
Tennessee Chamber of Commerce &  
Industry  
U.S. Chamber of Commerce  
Verizon Communications, Inc.  
Wireless Generation  
Worldwide Interactive Network (WIN)  
Youngstown/Warren Regional Chamber

*Appeared in the New York Times on February 12, 2013*

As business leaders, we believe that ALL American children have a right to an education that prepares them to be successful in a competitive global economy. We also understand that in order to compete in a knowledge-based, global economy, we must improve the academic performance of our students. The United States is once again at a critical place in its quest for educational excellence, and the need for a strong employer voice is greater than ever. America's business leaders can make a positive difference for schools, students and the country's future if we join together and share our expectations for education and our support for the people and institutions that move education reform forward.

The Common Core State Standards (CCSS) Initiative, led by the National Governors Association Center for Best Practices and the Council of Chief State School Officers, has produced K-12 standards in the foundational subjects of math and English that meet the business community's expectations: they are college- and career-ready, grounded in evidence and internationally benchmarked. The CCSS set consistent, focused, rigorous academic expectations for all students, and 46 states and the District of Columbia have already adopted them. The CCSS serve as a necessary foundation for making the changes needed to improve student achievement and ensure the United States' educational and economic preeminence.

We support these new, tougher academic standards that are currently being rolled out in classrooms across the country. These standards will better prepare students for college and the workplace, something of critical importance to the nation's employers. The changes now under way in America's schools hold great promise for creating a more highly skilled workforce that is better equipped to meet the needs of local, state and national economies.

3M Inge Thulin   Chairman, President & CEO	BUSINESS ROUNDTABLE John Engler   President	EATON Alexander M. Cutler   Chairman & CEO
ACCENTURE William D. Green   Chairman	CA TECHNOLOGIES Michael Gregoire   CEO	ELI LILLY AND CO. John C. Lechleiter   Chairman, President & CEO
ADM AEROSPACE INDUSTRIES ASSOCIATION Marion C. Blakey   CEO & President	CAPITAL GROUP James F. Rothenberg   Chairman	ENTERTAINMENT INDUSTRIES COUNCIL Brian Dyak   Founder, Chairman & CEO
ALCOA Klaus Kleinfeld   Chairman & CEO	CARDINAL HEALTH George S. Barrett   Chairman & CEO	EPIC GAMES Tim Sweeney   Founder, Chairman & CEO
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BP AMERICA Lamar McKay   Chairman & President	DAVITA HEALTHCARE PARTNERS Kent Thiry   Chairman & CEO	HARLEY-DAVIDSON Keith Wandell   CEO & President
BROWN-FORMAN Paul C. Varga   Chairman & CEO	DOLLAR GENERAL Richard W. Dreiling   Chairman & CEO	HARPER INDUSTRIES, INC. Billy Harper   CEO
BUFFALO SUPPLY INC. T.J. Jackson   CEO & President	THE DOW CHEMICAL COMPANY Andrew N. Liveris   Chairman & CEO	HUMANA, INC. Bruce D. Broussard   CEO & President
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BUSINESS AND INDUSTRY STEM EDUCATION COALITION Rick Stephens   Chair	E-LINE MEDIA Michael Angst   CEO & Co-Founder	INDIANA UNIVERSITY HEALTH Daniel F. Evans Jr.   CEO & President

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Daniel S. Glaser | CEO & President

MCGRAW-HILL  
Harold McGraw III | Chairman, President & CEO

MCKINSTRY  
Dean C. Allen | CEO

MICROSOFT CORPORATION  
Brad Smith | Executive Vice President & General Counsel

THE MITRE CORPORATION  
Alfred Grasso | President & CEO

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Lt. Gen. Lawrence Farrell Jr. | USAF (Ret.), CEO

NATURE PUBLISHING GROUP  
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Wes Bush | Chairman, CEO & President

NORTHWESTERN MUTUAL LIFE  
John Schlifske | CEO

OPTUMRx  
Dirk McMahon | CEO

PASCO  
Paul A. Stokstad | President & Founder

PROMETHEAN  
James N. Marshall | CEO

RAYTHEON COMPANY  
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Keith Nosbusch | Chairman & CEO

ROCKWELL COLLINS  
Clayton M. Jones | Chairman & CEO

SALLY RIDE SCIENCE  
Sheryle Bolton | CEO

SAMSON ENERGY COMPANY, LLC  
Stacy Schusterman | CEO

SMART TECHNOLOGIES  
Neil Gaydon | President & CEO

SPACE SYSTEMS/LORAL  
John Celli | President

STATE FARM INSURANCE  
Edward B. Rust Jr. | Chairman & CEO

STELLAR SOLUTIONS  
Celeste Ford | CEO & Founder

SUNBURST ELECTRONICS  
John Cline | President & CEO

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THE TRAVELERS COMPANIES, INC.  
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Thomas J. Donohue | CEO & President

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Michael C. Gass | President & CEO

VERNIER SOFTWARE & TECHNOLOGY  
David Vernier | Founder & CEO

XEROX  
Ursula Burns | Chairman & CEO

\*Objectives in "red" refer to the Indiana Academic Standards

\*A ~~strikeout~~ shows a part of the standard that will be addressed in a later unit.

Unit 1: Place Value and Measurement using Addition and Subtraction	Suggested Number of Days: 18 7/29/2013 – 8/21/2013
<p>In this unit students review and increase the sophistication of computation strategies for addition and subtraction. This unit introduces the concept of rounding. Area, perimeter and graphing provide contexts in which students can practice both rounding and addition and subtraction. IAS involving shapes and lines are reviewed in this unit in the context of area and perimeter and will be further explored in Unit 6.</p>	
<p><b>Learning Objectives</b></p> <p><b>Declarative Knowledge: <i>Students will know and understand</i></b></p> <ul style="list-style-type: none"> <li>• place value to the hundreds. CCSS <u>3.NBT.1</u></li> <li>• place value to the thousands. CCSS <u>3.NBT.2</u> includes IAS <u>3.1.2</u></li> <li>• place value of any number <b>up to 1,000</b> in various combinations of hundreds, tens, and ones. IAS <u>3.1.4</u></li> <li>• addition and subtraction strategies and algorithms. CCSS <u>3.NBT.2</u></li> <li>• a process for rounding whole numbers. CCSS <u>3.NBT.1</u></li> <li>• how to read and draw a picture graph and scaled bar graph to represent a data set with several categories. CCSS <u>3.MD.3</u></li> <li>• how to solve one and two step word problems using information presented in graphs. CCSS <u>3.MD.3</u></li> <li>• area can be found using <del>multiplication</del> or addition. CCSS <u>3.MD.7a</u></li> <li>✓ perimeter is the distance around a polygon. CCSS <u>3.MD.8</u></li> </ul> <p><b>Procedural Knowledge: <i>Students can</i></b></p> <ul style="list-style-type: none"> <li>• compare whole numbers <b>up to 1,000</b> and arrange them in numerical order. IAS <u>3.1.5</u></li> <li>• use words, models, and expanded form to represent numbers up to 1,000. IAS <u>3.1.3</u></li> <li>• <del>quickly and accurately</del> add and subtract numbers <del>to 1000</del> using efficient number sense strategies. CCSS <u>3.NBT.2</u></li> <li>• round whole numbers to the nearest ten or hundred. CCSS <u>3.NBT.1</u></li> <li>• round numbers <b>less than 1,000</b> to the nearest ten and the nearest hundred. IAS <u>3.1.6</u></li> <li>• read and draw a picture graph and scaled bar graph to represent a data set with several categories. CCSS <u>3.MD.3</u></li> <li>• solve one and two step word problems using information presented in graphs. CCSS <u>3.MD.3</u></li> <li>• explain that area is an attribute of a plane figure and is measured using square units. CCSS <u>3.MD.5a</u>, <u>3.MD.5b</u></li> <li>• find the area of a rectangle with whole number side lengths using square tiles. <del>Then show that the area can be found by multiplying the side lengths.</del> CCSS <u>3.MD.7a</u></li> <li>• find the perimeter of a polygon with known and unknown sides. CCSS <u>3.MD.8</u></li> <li>• identify right angles in shapes and objects. IAS <u>3.4.2</u></li> <li>• decide whether angles are greater or less than a right angle. IAS <u>3.4.2</u></li> <li>• use the terms point, line, and segment in describing two-dimensional shapes. IAS <u>3.4.6</u></li> <li>• Identify, describe, and classify: cube, sphere, prism, pyramid, cone, and cylinder. IAS <u>3.4.3</u></li> </ul>	<p><b>Essential Vocabulary</b></p> <p>scale (of graph)  rectilinear figure  perimeter  polygon  segment  right angle  rounding  area</p>

<p><b>Notes/Common Misconceptions</b> Students are often taught one strategy for rounding; however it is important to provide them with a variety of strategies to use.</p>	<p><b>Diagnostic Assessment</b> Selected or Constructed Response Addition and subtraction, rounding, place value, bar graphs</p>
<p><b>Mathematical Critical Practices</b> 1. <u>Make sense of problems and persevere in solving them.</u> 4. <u>Model with mathematics.</u> 5. <u>Use appropriate tools strategically.</u> 6. <u>Attend to precision.</u></p>	<p><b>Summative Assessment</b> Extended Response and Performance</p>
<p><b>Looking Back and Forward</b> In grade 2, students used addition/subtraction within 1,000 using concrete objects. They have also had the opportunity to represent and interpret data through the use of bar graphs. Student knowledge of place value will be extended to millions in fourth grade. They will also use area and perimeter formulas. Line plots are explored.</p>	
<p><b>Suggested Resources</b> <a href="http://nces.ed.gov/nceskids/createagraph/default.aspx">http://nces.ed.gov/nceskids/createagraph/default.aspx</a> <a href="http://www.internet4classrooms.com/grade_level_help/interpret_graph_third_3rd_grade.htm">http://www.internet4classrooms.com/grade_level_help/interpret_graph_third_3rd_grade.htm</a> Envision Topic 20 Envision Topic 17 <a href="http://illuminations.nctm.org/ActivitySearch.aspx">http://illuminations.nctm.org/ActivitySearch.aspx</a> Envision Topic 16</p>	

Unit 2: Exploring equal groups as a foundation for multiplication	Suggested Number of Days: 30 8/22/2013 – 10/4/2013
In this unit students are developing the foundation of multiplication and division as groups and equal shares, while applying the concepts to measurement.	
<p><b>Learning Objectives</b></p> <p><b>Declarative Knowledge: <i>Students will know and understand</i></b></p> <ul style="list-style-type: none"> <li>• multiplication as repeated addition. CCSS <u>3.OA.1</u> includes IAS <u>3.2.2</u></li> <li>• division as repeated subtraction resulting in equal shares. CCSS <u>3.OA.2</u> includes IAS <u>3.2.3</u></li> <li>✓ when to use multiplication and/or division appropriately when solving word problems. CCSS <u>3.OA.3</u></li> <li>• multiplication and division strategies and properties. CCSS <u>3.OA.7</u></li> <li>• different properties of multiplication. CCSS <u>3.OA.5</u></li> <li>• commutative property. CCSS <u>3.OA.5</u></li> <li>• how to add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units. CCSS <u>3.MD.2</u></li> <li>• plane figures have length and width and can be covered in square units to determine area. CCSS <u>3.MD.5a</u>, <u>3.MD.5b</u></li> <li>• area is found by covering a plane figure using a square unit without gaps or overlaps. CCSS <u>3.MD.6</u></li> <li>• area can be found using multiplication or addition. CCSS <u>3.MD.7a</u>, <u>3.MD.7b</u></li> </ul> <p><b>Procedural Knowledge: <i>Students will be able to</i></b></p> <ul style="list-style-type: none"> <li>• show and explain how a product represents the total number of objects in equal groups. CCSS <u>3.OA.1</u></li> <li>• show and explain how division represents the number of groups and/or the number in each group. CCSS <u>3.OA.2</u></li> <li>• explain real world situations in which multiplication is the most efficient strategy. CCSS <u>3.OA.1</u></li> <li>• explain real world situations in which division is the most efficient strategy. CCSS <u>3.OA.2</u></li> <li>• represent and solve a word problem using drawings and equations including a symbol for an unknown number. CCSS <u>3.OA.3</u></li> <li>• <del>quickly and accurately</del> solve single digit multiplication problems within 100. CCSS <u>3.OA.7</u></li> <li>✓ solve simple multiplication and division equations by utilizing the commutative property. CCSS <u>3.OA.5</u></li> <li>✓ Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units. CCSS <u>3.MD.2</u></li> <li>✓ measure the area of a plane figure using unit squares (square cm, square m, square in, square ft, and improvised units). CCSS <u>3.MD.6</u></li> <li>• find the area of a rectangle with whole-number side lengths using square tiles. Then show that the area can be found by multiplying the side lengths. CCSS <u>3.MD.7a</u>, <u>3.MD.7b</u></li> <li>• solve problems using area in a real world situations. CCSS <u>3.MD.7a</u>, <u>3.MD.7b</u></li> <li>• find the area of a rectilinear figure using multiplication and addition. CCSS <u>3.MD.7a</u>, <u>3.MD.7b</u></li> <li>• Build two rectangles with the same perimeter and different area. CCSS <u>3.MD.8</u></li> <li>• Build two rectangles with the same area and different perimeter. CCSS <u>3.MD.8</u></li> </ul>	<p><b>Essential Vocabulary</b></p> <p>multiply product factors array quotient dividend divide divisor shares/groups variable/unknown commutative property volume mass gram kilogram liter square units area length width plane figure improvised units rectilinear figure</p>

<p><b>Notes/Common Misconceptions</b> It is important to remember that division answers two essential questions: How many groups? How many are in each group?</p>	<p><b>Diagnostic Assessment</b></p>
<p><b>Mathematical Critical Practices</b> 1. <u>Make sense of problems and persevere in solving them.</u> 2. <u>Reason abstractly and quantitatively.</u> 6. <u>Attend to precision.</u></p>	<p><b>Summative Assessment</b></p>
<p><b>Looking Back and Forward</b> In grade 2, students added groups of objects by skip counting and using repeated addition.  Students will be working towards multiplication/division fluency as the year progresses.</p>	
<p><b>Suggested Resources</b>  <a href="http://www.brainpop.com/math/numbersandoperations/multiplication/preview.weml">http://www.brainpop.com/math/numbersandoperations/multiplication/preview.weml</a>                      Envision Topic 6  <a href="http://illuminations.nctm.org/LessonDetail.aspx?id=L858">http://illuminations.nctm.org/LessonDetail.aspx?id=L858</a>  <a href="http://www.brainpopjr.com/math/multiplicationanddivision/makeequalgroups/preview.weml">http://www.brainpopjr.com/math/multiplicationanddivision/makeequalgroups/preview.weml</a>  <a href="http://www.brainpop.com/math/numbersandoperations/division/preview.weml">http://www.brainpop.com/math/numbersandoperations/division/preview.weml</a>  <a href="http://www.brainpopjr.com/math/multiplicationanddivision/arrays/preview.weml">http://www.brainpopjr.com/math/multiplicationanddivision/arrays/preview.weml</a>  <a href="http://www.maths-games.org/times-tables-games.html">http://www.maths-games.org/times-tables-games.html</a>  <a href="http://www.arcademicskillbuilders.com/games/meteor/meteor.html">http://www.arcademicskillbuilders.com/games/meteor/meteor.html</a>  <a href="http://www.arcademicskillbuilders.com/games/demolition/demolition.html">http://www.arcademicskillbuilders.com/games/demolition/demolition.html</a>                      Envision Topic 5                      Envision Topic 8  <a href="http://www.worldplenty.com/pro74bx2.htm">http://www.worldplenty.com/pro74bx2.htm</a>  <a href="http://www.brainpop.com/math/numbersandoperations/commutativeproperty/preview.weml">http://www.brainpop.com/math/numbersandoperations/commutativeproperty/preview.weml</a>  <a href="http://www.brainpop.com/math/numbersandoperations/distributiveproperty/preview.weml">http://www.brainpop.com/math/numbersandoperations/distributiveproperty/preview.weml</a>  <a href="http://www.brainpop.com/math/numbersandoperations/associativeproperty/preview.weml">http://www.brainpop.com/math/numbersandoperations/associativeproperty/preview.weml</a>  <a href="http://www.dpi.state.nc.us/docs/acre/standards/common-core-tools/unpacking/math/3rd.pdf">http://www.dpi.state.nc.us/docs/acre/standards/common-core-tools/unpacking/math/3rd.pdf</a> page 29                      Envision Topic 17</p>	

Unit 1: Collaborative Analysis of Text	Suggested Number of Days: 29 7/29/2013 – 9/6/2013
<p>Students will engage in collaborative discussions while analyzing texts from diverse cultures. They will compare and contrast stories while examining the central message, themes, settings, and plots. Students will write narratives that include dialogue and descriptions.</p> <p><i>*All standards are assessed at the end of the unit, unless otherwise noted.</i></p>	
<p><b>Learning Objectives</b></p> <p><b>Declarative Knowledge: <i>Students will know and understand</i></b></p> <ul style="list-style-type: none"> <li>• conversational vocabulary, academic vocabulary, and domain specific vocabulary. <u>L.3.6</u></li> </ul> <p><b>Procedural Knowledge: <i>Students can</i></b></p> <ul style="list-style-type: none"> <li>• recount stories from diverse cultures. <u>RL.3.2</u></li> <li>• determine the central message, lesson, or moral from these stories. <u>RL.3.2</u></li> <li>• use key details from the story to support their answers. <u>RL.3.2</u></li> <li>• compare and contrast books written by one author that are based on the same or similar characters. <u>RL.3.9</u></li> <li>• use the themes, settings, and plots from these stories to list similarities and differences. <u>RL.3.9</u></li> </ul> <p><b>Indiana Academic Standards for Instruction (not aligned to INCC that will be assessed on ISTEP+)</b></p> <ul style="list-style-type: none"> <li>• arrange words in alphabetical order. <u>3.6.9</u></li> <li>• recall major points in the text and make and revise predictions about what is read (<u>RL.3.2</u>) <u>3.2.4</u></li> <li>• compare and contrast versions of the same stories from different cultures. (<u>RI.3.9</u>) <u>3.3.7</u></li> <li>• tell how historical events, scientific ideas or “how to” procedures are related in a text. <u>RI.3.3</u></li> <li>• analyze the sequence of events of historical events, scientific ideas or “how to” procedures in a text. <u>RI.3.3</u></li> <li>• compare and contrast the important details of two texts written on the same topic. <u>RI.3.9</u></li> <li>• read a variety of texts fluently and accurately to read for meaning and enjoyment. <u>RF.3.4.a</u> (<i>Assessed at BOY, MOY, and EOY with DRA2 and taught throughout the year.</i>)</li> <li>• write a narrative piece in which they introduce characters and organize a sequence of events. <u>W.3.3</u></li> <li>• use dialogue and descriptions to show actions, thoughts, and feelings of characters throughout the story. <u>W.3.3</u></li> <li>• use temporal words to show the order of events, such as the next day, tomorrow, before, etc. <u>W.3.3</u></li> <li>• provide a sense of closure when writing a narrative. <u>W.3.3</u></li> <li>• use technology to produce and publish writing. <u>W.3.6</u> (<i>Assessed in Unit 4</i>)</li> <li>• use keyboarding skills to publish writing. <u>W.3.6</u> (<i>Assessed in Unit 4</i>)</li> <li>• use technology to interact and collaborate with others. <u>W.3.6</u> (<i>Assessed in Unit 4</i>)</li> <li>• come to discussions prepared by reading and studying the topic. <u>SL.3.1</u></li> <li>• follow agreed upon rules for discussions. <u>SL.3.1</u></li> <li>• ask questions to check understanding. <u>SL.3.1</u></li> <li>• stay on topic. <u>SL.3.1</u></li> <li>• add to the discussion by connecting comments to other comments made in the group. <u>SL.3.1</u></li> <li>• explain their own ideas and understanding at the end of the discussion. <u>SL.3.1</u></li> </ul>	<p><b>Essential Vocabulary</b></p> <p>recount moral fable folktale myth theme plot historical events scientific ideas “how to” procedures fluent reading accurate reading linking words dialogue signal words temporal words collaborate keyboarding skills discussions spelling patterns effect standard English connections conversational vocabulary academic vocabulary domain specific vocabulary simple sentence compound sentence complex sentence</p>

<ul style="list-style-type: none"> <li>• speak in complete sentences to provide details or explanations. <u>SL.3.6</u></li> <li>• spell words by using spelling patterns. <u>L.3.2.f</u></li> <li>• choose words and phrases for effect when speaking and writing. <u>L.3.3</u></li> <li>• notice the differences between spoken and written standard English. <u>L.3.3</u></li> <li>• describe real-life connections between words and their use (e.g., describe people who are friendly or helpful) <u>L.3.5.b</u></li> <li>• accurately use conversational vocabulary, academic vocabulary and domain specific vocabulary when speaking and writing. <u>L.3.6</u></li> <li>• make simple, compound, and complex sentences. <u>L.3.1.i</u></li> </ul>	
<p><b>Notes/Common Misconceptions</b>  <u>W.3.3</u> Students have been expected to use temporal words starting in first grade, but this specific vocabulary term may not have been introduced.  <u>L.3.6</u> "Tier One words are the words of everyday speech usually learned in the early grades, albeit not at the same rate by all children."  "General academic vocabulary (Tier 2) words appear in all sorts of texts; informational, technical texts, and literary texts."  "Domain-specific vocabulary (Tier 3) words are specific to a domain or field of study and key to understanding a new concept within a text. Because of their specificity and close ties to content knowledge, Tier Three words are far more common in informational texts than in literature."(Beck)</p>	Diagnostic Assessment
<p><b>E/LA Critical Practices</b>  Students will need to be able to collaborate in small group/paired settings without the teacher facilitating the conversation.  Students will need to read more informational text: historical pieces, scientific text, and technical materials.</p>	Summative Assessment
<p><b>Looking Back and Forward</b>  <u>L.3.3</u> This standard will require continued attention in higher grades in regards to writing and speaking.  <u>RL.3.2</u> There is a shift from the verb retell to recount between 1st and 2nd grades. Retell is the oral telling of the story in the present tense. Recount is telling from past tense with an evaluative statement from the perspective from the reader. This may include the moral, central message, or lesson. In 4th grade this verb evolves to summarizing.]  <a href="http://dconrad3.wordpress.com/2013/01/29/retell-or-recount-the-common-core-shift-from-1st-grade-to-2nd-grade/">http://dconrad3.wordpress.com/2013/01/29/retell-or-recount-the-common-core-shift-from-1st-grade-to-2nd-grade/</a>  <u>RL.3.9</u> This is the first time that students are introduced to the concept of theme. Students were introduced to the concept of plot in 2nd grade.</p>	
<p><b>Suggested Resources</b>  <u>Multicultural Book Sets</u>  <u>Digital Nonfiction Text Sets</u>  <u>The Reading and Writing Project Resources for Social Studies</u>  <u>Videos of students having collaborative discussions</u>  <u>Graphic Organizers for Reading Comprehension</u>  <u>Myths and Legends</u>  <u>Academic Vocabulary</u>  <u>Aesop's Fables</u>  <u>Author Study Toolkit</u></p>	

## Unit 2: Close Reading to Examine Main Ideas, Details, and Illustrations

Suggested Number of Days: 29  
9/7/2013 – 11/1/2013

Students will read text closely to determine main ideas and details and analyze illustrations to comprehend text at deeper levels. They will write informational pieces by developing topics and including illustrations.

*\*All standards are assessed at the end of the unit, unless otherwise noted.*

## Learning Objectives:

Declarative Knowledge: *Students will know and understand*

- the meaning of "literal language." RL.3.4
- the meaning of "nonliteral language". RL.3.4

Procedural Knowledge: *Students can*

- determine the meaning of unfamiliar words and phrases in text. RL.3.4
- explain the difference between literal and nonliteral language. RL.3.4
- use illustrations to better understand the mood, characters and setting of the story. RL.3.7

Indiana Academic Standards for Instruction (not aligned to INCC that will be assessed on ISTEP+)

- Know and use more difficult word families (-ight) when reading unfamiliar words. 3.1.1
- identify the main idea and recount the key details. RI.3.2
- tell how the key details support the main idea. RI.3.2
- explain how various media (maps, diagrams, photos, audio) add to the understanding of the text. RI.3.7
- read a variety of texts fluently and accurately to read for meaning and enjoyment. *Continue to teach* RF.3.4.a (*Assessed at BOY, MOY, and EOY with DRA2*)
- produce writing that is clear and understandable to the reader with support. W.3.4
- write an informational piece and include illustrations when useful. W.3.2
- develop a topic using facts, definitions, and details. W.3.2
- use linking words and phrases to connect ideas. W.3.2
- write a concluding statement or section. W.3.2
- determine the main ideas and supporting details of a text read aloud or information from a speaker or other sources. SL.3.2
- explain the correct use of nouns. L.3.1.a (*Assessed in unit 5*)
- make and use regular and irregular plural nouns. L.3.1.b
- use abstract nouns. L.3.1.c
- make and use possessives. L.3.2.d (*Assessed in unit 4*)
- use context clues from sentences to determine the meaning of a word or phrase. L.3.4.a (*Assessed in unit 4*)
- tell the difference between literal and nonliteral meanings of words and phrases in text. L.3.5.a

## Essential Vocabulary

literal and nonliteral language  
mood  
main idea  
recount  
various media  
informational text  
linking words  
concluding statement  
concluding section  
nouns  
verbs  
adjectives  
adverbs  
regular nouns  
irregular nouns  
abstract nouns  
possessive nouns  
context clues  
literal  
nonliteral

Notes/Common Misconceptions	Diagnostic Assessment
<p><b>E/LA Critical Practices</b>                  Students will need to be exposed to a wide variety of nonfiction and informational texts. This may be their first experience writing an informational text.                  There is a difference between retelling and recounting. Refer to the link under suggested resources.</p>	Summative Assessment
<p><b>Looking Back and Forward</b>  <u>RL.3.7</u> This is the first time students are introduced to the concept of mood.                   Students have used illustrations to better understand characters and setting since kindergarten.</p>	
<p><b>Suggested Resources</b>   <u>Retell vs. Recount</u>  <u>Cause and Effect frames using Information</u>  <u>Using Technical Vocabulary in Informational Writing</u>  <u>Interpret Words and Phrases in a Poem</u>  <u>Figurative Language: Teaching Idioms</u>  <u>Inform a specific audience about an idea by writing a persuasive letter</u></p>	

**Exhibit F  
 Interim Study Comm. on Common  
 Core Educational Standards  
 Meeting #1, 8/5/2013**

My name is Cara Swinefurth and I am the principal of St. Thomas Aquinas School in Indianapolis, a K-8 school in the Archdiocese of Indianapolis. I am here to speak in support of Indiana's adoption of the Common Core standards.

For the past few years, my teachers have been committed to the transition plan laid out by the IDOE. They have studied the Common Core standards, compared them to the Indiana Academic Standards and made the appropriate adjustments. They have participated in significant professional development to realign our curriculum and they see the logic of the scope and sequence of the standards.

Some of our successes include:

- My teachers are able to instruct each area of content and skills more deeply. They are no longer pressured to just move on to cover innumerable standards in a year. They are able to teach each child to mastery level.
- My teachers appreciate being treated as the professionals they are with the expertise they possess. The CC standards provide a framework and also allow for flexibility of materials and strategies. My faculty knows each student in their charge and as such chooses the materials and strategies that best suit the learning needs of their students.
- Specific to ELA: Text complexity demands are much higher than were communicated before. The writing component is much more structured and demanding, requiring students to "prove it", rather than just offer a basic opinion. Our students continue to be immersed in rich literature and strong informational text. Their communication skills through writing, speaking, listening and media are growing.
- Specific to Math: The focus of true conceptual understanding, rather than just procedural skills is a major improvement. With a limited amount of topics, students now have the ability to move from the concrete to the abstract and develop critical thinking skills. Our students are not only fluent in their math facts, but can explain how and why math works. It is no longer a magic trick as some students once believed due to their lack of understanding.

In 1999, Indiana wrote our own academic standards. Previous to having those, each corporation, district or individual school determined its own grade level content. Much of these concepts were based on what started in chapter one of a textbook and maybe never reached what was included in chapter twelve. In 1999, taking the step to the Indiana Academic Standards was difficult, but worth it. Common Core is the next step to continuing excellence. My teachers have taken it with enthusiasm. Our students are succeeding with it. I ask that you allow us to continue this important work.

**Exhibit H  
Interim Study Comm. on Common  
Core Educational Standards  
Meeting #1, 8/5/2013**

**Testimony before the Indiana  
2013 Legislative Interim Study Committee on  
Common Core Educational Standards**

**Ze'ev Wurman  
August 5, 2013**

# Common Core Comparative Curriculum Studies (Math)

- **Goodman, J., Courant Institute, NYU, 2010**
  - The Common Core standards have “**significantly lower expectations** with respect to algebra and geometry than the published standards of other countries.”
- **Stotsky & Wurman, Pioneer Institute, 2010**
  - “Common Core’s project was a laudable effort to shape a national curriculum. Unfortunately, rather than build on the strengths that can be documented in Massachusetts or California, the draft-writers chose to navigate an uncharted path. Consequently ...**by grade 8 their standards are a year or two behind the National Mathematics Advisory Panel’s recommendations, leading states, and our international competitors.** Worse, Common Core’s standards impose an experimental geometry curriculum on the nation, without piloting. ... Common Core’s mathematics standards **miss chunks of content recommended by the NMAP for K-8,** and inexplicably **leave large holes in mathematics content currently in the high school curriculum.**”
- **Milgram, R. J., Stanford, for the Calif. Academic Content Standards Commission, 2010**
  - “[A] large number of the [Common Core] standards **are one, two or even more years behind** the corresponding standards for many if not all the high achieving countries.”

# Common Core Studies (cont.)

- **Porter, A. C., et al., U. Penn., 2011**
  - “We also used international benchmarking to judge the quality of the **Common Core standards**, and the results are surprising both for **mathematics and for ELAR**. Top-achieving countries for which we had content standards put a greater emphasis on ‘perform procedures’ than do the U.S. Common Core standards. **High-performing countries’ emphasis on ‘perform procedures’ runs counter to the widespread call in the United States for a greater emphasis on higher order cognitive demand.**”
- **Schmidt & Houang, Michigan State U., 2012**
  - “**Looking first at a visual representation ...**, together with the vetting done by mathematicians ... **it can be suggested that the CCSSM are coherent and focused. ... There being no major differences between the two sets of standards [A+ and CCSSM] this provides further evidence that the CCSSM are coherent and very consistent with the international benchmark.**”

# TIMSS A+ Countries

- In 1995 the Third International Math & Science Study (TIMSS) was administered
- The curricula of the six top achievers were extensively studied
- The curriculum flow of those six top-achieving countries, so-called “TIMSS A+” countries, has been widely reviewed and widely praised
  - For their **coherent sequence** of topic introduction from the easier to the more complex;
  - For the **focused way** they dealt with topics, teaching them to mastery in just a few grades, rather than teaching them across many grades;
  - For the **depth** the limited number of topics in every grade allowed.

**This was in contrast to the then-prevalent U.S. curricula that were called “Mile Wide, Inch Deep”**

## Here is what the TIMSS A+ curriculum looked like

“A+ countries” are six nations, Flemish Belgium, Czech Republic, Hong Kong, Japan, Korea, and Singapore, that scored at the top in the 1995 TIMSS.

Prof. Schmidt was the US TIMSS Coordinator at the time, but those findings were verified by many others at the time and since then.

- Coherent Sequence: order of the rows
- Focus: limited # of grades per topic
- Depth: Limited # of topics per grade

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	●	●	●	●	●			
Whole Number Operations	●	●	●	●	●			
Measurement Units	●	●	●	●	●	●	●	
Fractions			●	●	●	●		
Equations & Formulas			●	●	●	●	●	●
Data Representation & Analysis			●	●	●	●	●	●
2-D Geometry Basics			●	●	●	●	●	●
Polygons & Circles			●	●	●	●	●	●
Perimeter, Area & Volume			●	●	●	●	●	●
Rounding & Significant Figures			●	●	●			
Estimating Computations			●	●	●	●		
Properties of Whole Numbers Operations			●	●	●			
Estimating Quantity & Size			●	●	●			
Decimals			●	●	●	●		
Relation of Decimals & Fractions			●	●	●	●		
Properties of Decimals & Fractions			●	●	●	●		
Percentages				●	●	●		
Proportionality Concepts				●	●	●	●	●
Proportionality Problems				●	●	●	●	●
2-D Coordinate Geometry				●	●	●	●	●
Geometric Transformations					●	●	●	●
Negative Numbers, Integers & Their Properties					●	●	●	●
Number Theory						●	●	●
Exponents, Roots & Radicals						●	●	●
Orders of Magnitude						●	●	●
Measurement Estimation & Errors						●	●	●
Constructions Using Straightedge & Compass						●	●	●
3-D Geometry						●	●	●
Congruence & Similarity							●	●
Rational Numbers & Their Properties							●	●
Functions							●	●
Slope							●	●

Intended by two-thirds or more of the top-achieving countries ●

Fig.1: Mathematics topics intended at each grade by at least two thirds of the TIMSS A+ countries

The SHAPE conveys much of it.

## Schmidt & Houang 2012 Study

- Took the Common Core Standards and mapped them based on the same principles and on the same matrix as the TIMSS A+ study
- Concluded:
  - Common Core standards are **very consistent** with the standards in the world's top-achieving countries;
  - States with **standards like the Common Core** are the ones that **did the best on the National Assessment of Educational Progress (NAEP)**;
  - The Common Core is “**coherent**” and “**hierarchical,**” unlike many of the state standards it replaced.

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	●	●	●	●	●			
Whole Number Operations	●	●	●	●	●			
Measurement Units	●	●	●	●	●	●	●	
Fractions			●	●	●	●		
Equations & Formulas			●	●	●	●	●	●
Data Representation & Analysis			●	●	●	●		●
2-D Geometry Basics			●	●	●	●	●	●
Polygons & Circles				●	●	●	●	●
Perimeter, Area & Volume				●	●	●	●	●
Rounding & Significant Figures				●	●			
Estimating Computations				●	●	●		
Properties of Whole Numbers Operations				●	●			
Estimating Quantity & Size				●	●			
Decimals				●	●	●		
Relation of Decimals & Fractions				●	●	●		
Properties of Decimals & Fractions					●	●		
Percentages					●	●		
Proportionality Concepts					●	●	●	●
Proportionality Problems					●	●	●	●
2-D Coordinate Geometry					●	●	●	●
Geometric Transformations						●	●	●
Negative Numbers, Integers & Their Properties						●	●	
Number Theory							●	●
Exponents, Roots & Radicals							●	●
Orders of Magnitude							●	●
Measurement Estimation & Errors							●	
Constructions Using Straightedge & Compass							●	●
3-D Geometry							●	●
Congruence & Similarity								●
Rational Numbers & Their Properties								●
Functions								●
Slope								●

Intended by two-thirds or more of the top-achieving countries ●

Fig.1: Mathematics topics intended at each grade by at least two thirds of the TIMSS A+ countries

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	●	●	●	●	●			
Whole Number Operations	●	●	●	●	●			
Properties of Whole Numbers Operations	●	●	●	●	●	●		
Fractions	●	●	●	●	●	●		
Measurement Units	●	●	●	●	●	●	●	●
Polygons & Circles	●	●	●	●	●	●	●	●
Data Representation & Analysis	●	●	●	●	●	●	●	●
3-D Geometry	●				●	●	●	●
Measurement Estimation & Errors		●	●					
Number Theory		●		●	●	●		
2-D Geometry Basics		●		●	●	●	●	●
Rounding & Significant Figures			●	●	●			
Relation of Decimals & Fractions			●	●	●	●		
Estimating Computations			●	●	●	●	●	●
Perimeter, Area & Volume			●	●	●	●	●	●
Equations & Formulas			●	●	●	●	●	●
Decimals				●	●	●		
Patterns, Relations & Functions				●	●	●	●	●
Geometric Transformations				●	●	●	●	●
Properties of Decimals & Fractions					●	●		
Orders of Magnitude					●	●	●	●
2-D Coordinate Geometry					●	●	●	●
Exponents, Roots & Radicals					●	●	●	●
Percentages						●	●	●
Negative Numbers, Integers & Their Properties						●	●	●
Proportionality Concepts						●	●	●
Proportionality Problems						●	●	●
Rational Numbers & Their Properties						●	●	●
Constructions Using Straightedge & Compass							●	●
Systematic Counting							●	●
Uncertainty & Probability							●	●
Real Numbers & Their Properties								●
Congruence & Similarity								●
Slope								●
Validation & Justification								●

Fig.2: Mathematics topics intended in the Common Core State Standards

# Schmidt & Houang argue the figures are similar. Quote:

## Results

*Are the Common Core State Standards Coherent and Focused?*

As Cobb and Jackson (2011) indicated, an important issue is whether the CCSSM are coherent and how they compare on this dimension to the 50 state standards that are either being replaced or are still in effect. Looking first at a visual representation, we note that Figure 2 representing the CCSSM bears a strong resemblance to Figure 1 (A+ model), at least in terms of its general shape. From that point of view, together with the vetting done by mathematicians (several of whom were the same ones that did the original vetting of the A+), it can be suggested that the CCSSM are coherent and focused.

W. H. Schmidt, R.T. Houang, **Curricular Coherence and the Common Core State Standards for Mathematics**, *Educational Researcher*, Nov. 2012.

But note that in figure 2, the rows were reordered to create the *illusion* of a triangular “coherent” shape!

Topic	TIMSS								COMMON CORE								Topic
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
1 Whole Number: Meaning	●	●	●	●					●	●	●	●	●				1 Whole Number: Meaning
2 Whole Number: Operations	●	●	●	●	●				●	●	●	●	●	●			2 Whole Number: Operations
3 Measurement Units			●	●	●	●	●				●	●	●	●	●		12 Whole Numbers: Properties of Operations
4 Common Fractions			●	●	●	●	●				●	●	●	●	●		4 Common Fractions
5 Equations & Formulas			●	●	●	●	●				●	●	●	●	●		3 Measurement Units
6 Data Representation & Analysis			●	●	●	●	●				●	●	●	●	●		8 2-D Geometry: Polygons & Circles
7 2-D Geometry: Basics			●	●	●	●	●				●	●	●	●	●		6 Data Representation & Analysis
8 2-D Geometry: Polygons & Circles			●	●	●	●	●				●	●	●	●	●		28 3-D Geometry
9 Measurement: Perimeter, Area & Volume			●	●	●	●	●				●	●	●	●	●		26 Measurement: Estimation & Errors
10 Rounding & Significant Figures			●	●	●	●	●				●	●	●	●	●		23
11 Estimating Computations			●	●	●	●	●				●	●	●	●	●		7 2-D Geometry: Basics
12 Whole Numbers: Properties of Operations			●	●	●	●	●				●	●	●	●	●		10 Rounding & Significant Figures
13 Estimating Quantity & Size			●	●	●	●	●				●	●	●	●	●		15 Relation of Common & Decimal Fractions
14 Decimal Fractions			●	●	●	●	●				●	●	●	●	●		11 Estimating Computations
15 Relation of Common & Decimal Fractions			●	●	●	●	●				●	●	●	●	●		9 Measurement: Perimeter, Area & Volume
16 Properties of Common & Decimal Fractions			●	●	●	●	●				●	●	●	●	●		5 Equations & Formulas
17 Percentages			●	●	●	●	●				●	●	●	●	●		14 Decimal Fractions
18 Proportionality Concepts			●	●	●	●	●				●	●	●	●	●		31
19 Proportionality Problems			●	●	●	●	●				●	●	●	●	●		21
20 2-D Geometry: Coordinate Geometry			●	●	●	●	●				●	●	●	●	●		16 Properties of Common & Decimal Fractions
21			●	●	●	●	●				●	●	●	●	●		25 Exponents & Orders of Magnitude
22			●	●	●	●	●				●	●	●	●	●		20
23			●	●	●	●	●				●	●	●	●	●		24 Exponents, Roots & Radicals
24			●	●	●	●	●				●	●	●	●	●		17 Percentages
25 Exponents & Orders of Magnitude			●	●	●	●	●				●	●	●	●	●		22
26 Measurement: Estimation & Errors			●	●	●	●	●				●	●	●	●	●		18 Proportionality Concepts
27 Constructions Using Straightedge & Compass			●	●	●	●	●				●	●	●	●	●		19 Proportionality Problems
28 3-D Geometry			●	●	●	●	●				●	●	●	●	●		30
29			●	●	●	●	●				●	●	●	●	●		27 Constructions Using Straightedge & Compass
30			●	●	●	●	●				●	●	●	●	●		33 Systematic Counting
31			●	●	●	●	●				●	●	●	●	●		34 Uncertainty & Probability
32			●	●	●	●	●				●	●	●	●	●		35 Real Numbers & Their Properties
33 Systematic Counting			●	●	●	●	●				●	●	●	●	●		29
34 Uncertainty & Probability			●	●	●	●	●				●	●	●	●	●		32
35 Real Numbers & Their Properties			●	●	●	●	●				●	●	●	●	●		36 Validation & Justification
36 Validation & Justification			●	●	●	●	●				●	●	●	●	●		13 Estimating Quantity & Size

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	•	•	•	•	•			
Whole Number Operations	•	•	•	•	•			
Properties of Whole Numbers Operations				•	•			
Fractions			•	•	•	•		
Measurement Units	•	•	•	•	•	•	•	•
Polygons & Circles			•	•	•	•	•	•
Data Representation & Analysis			•	•	•	•	•	•
3-D Geometry							•	•
Measurement Estimation & Errors							•	
Number Theory							•	•
2-D Geometry Basics			•	•	•	•	•	•
Rounding & Significant Figures				•	•			
Relation of Decimals & Fractions			•	•	•			
Estimating Computations			•	•	•	•	•	•
Perimeter, Area & Volume			•	•	•	•	•	•
Equations & Formulas			•	•	•	•	•	•
Decimals				•	•	•		
Patterns, Relations & Functions							•	•
Geometric Transformations						•	•	•
Properties of Decimals & Fractions					•	•		
Orders of Magnitude							•	•
2-D Coordinate Geometry					•	•	•	•
Exponents, Roots & Radicals							•	•
Percentages					•	•		
Negative Numbers, Integers & Their Properties						•	•	•
Proportionality Concepts					•	•	•	•
Proportionality Problems					•	•	•	•
Rational Numbers & Their Properties							•	•
Constructions Using Straightedge & Compass							•	•
Systematic Counting								
Uncertainty & Probability							•	•
Real Numbers & Their Properties							•	•
Congruence & Similarity							•	•
Slope							•	•
Validation & Justification							•	•
Estimating Quantity & Size				•	•			

In this table Schmidt & Houang finally superimpose the original sequence of TIMSS A+ countries (dots) on top of the Common Core sequence (shaded).

It still *looks* triangular and coherent. That's because visually, the shaded regions capture the eye and they are in the revised order.

**Fig. 3: Mathematics topics intended at each grade in top-achieving A+ countries (dots) compared to the CCSS (shaded)**

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	●	●	●	●	●			
Whole Number Operations	●	●	●	●	●			
Properties of Whole Numbers Operations	●	●	●	●	●			
Fractions	●	●	●	●	●	●		
Measurement Units	●	●	●	●	●	●	●	
Polygons & Circles	●	●	●	●	●	●	●	●
Data Representation & Analysis	●	●	●	●	●	●	●	●
3-D Geometry	●	●	●	●	●	●	●	●
Measurement Estimation & Errors	●	●	●	●	●	●	●	●
Number Theory	●	●	●	●	●	●	●	●
2-D Geometry Basics	●	●	●	●	●	●	●	●
Rounding & Significant Figures	●	●	●	●	●	●	●	●
Relation of Decimals & Fractions	●	●	●	●	●	●	●	●
Estimating Computations	●	●	●	●	●	●	●	●
Perimeter, Area & Volume	●	●	●	●	●	●	●	●
Equations & Formulas	●	●	●	●	●	●	●	●
Decimals	●	●	●	●	●	●	●	●
Patterns, Relations & Functions	●	●	●	●	●	●	●	●
Geometric Transformations	●	●	●	●	●	●	●	●
Properties of Decimals & Fractions	●	●	●	●	●	●	●	●
Orders of Magnitude	●	●	●	●	●	●	●	●
2-D Coordinate Geometry	●	●	●	●	●	●	●	●
Exponents, Roots & Radicals	●	●	●	●	●	●	●	●
Percentages	●	●	●	●	●	●	●	●
Negative Numbers, Integers & Their Properties	●	●	●	●	●	●	●	●
Proportionality Concepts	●	●	●	●	●	●	●	●
Proportionality Problems	●	●	●	●	●	●	●	●
Rational Numbers & Their Properties	●	●	●	●	●	●	●	●
Constructions Using Straightedge & Compass	●	●	●	●	●	●	●	●
Systematic Counting	●	●	●	●	●	●	●	●
Uncertainty & Probability	●	●	●	●	●	●	●	●
Real Numbers & Their Properties	●	●	●	●	●	●	●	●
Congruence & Similarity	●	●	●	●	●	●	●	●
Slope	●	●	●	●	●	●	●	●
Validation & Justification	●	●	●	●	●	●	●	●
Estimating Quantity & Size	●	●	●	●	●	●	●	●

Here we highlight the original TIMSS A+ sequence rather than the shaded Common Core

Suddenly the topic progressions doesn't look "orderly and coherent" anymore

Fig. 3: Mathematics topics intended at each grade in top-achieving A+ countries (dots) compared to the CCSS (shaded)

## Misleading Conclusions, Sloppy Math

Yet Schmidt & Houang still conclude:

*“There being no major differences between the two sets of standards, this provides further evidence that the CCSSM are coherent and very consistent with the international benchmark. Overall, the A+ had a total congruence value of 833 (out of 1,000), which implies an almost 85% degree of consistency with the CCSSM.”*

If one simply counts the grids in Figure 3 (each grid box denoting a “topic-year”), CCSSM has 131 topic-years filled, with 45 of them not present in the A+ countries, while 13 of the topic-years of the A+ countries are not covered by CCSSM. In total, 58 out of 131 topic-years, almost half (44%) are misaligned between the TIMSS A+ countries and CCSSM.

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	•	•	•	•	•			
Whole Number Operations	•	•	•	•	•			
Properties of Whole Numbers Operations			•	•	•			
Fractions			•	•	•	•		
Measurement Units	•	•	•	•	•	•	•	
Polygons & Circles			•	•	•	•	•	
Data Representation & Analysis			•	•	•	•	•	
3-D Geometry							•	
Measurement Estimation & Errors								•
Number Theory								•
2-D Geometry Basics			•	•	•	•	•	
Rounding & Significant Figures								•
Relation of Decimals & Fractions			•	•	•	•	•	
Estimating Computations								•
Perimeter, Area & Volume			•	•	•	•	•	
Equations & Formulas			•	•	•	•	•	
Decimals								•
Patterns, Relations & Functions								•
Geometric Transformations								•
Properties of Decimals & Fractions								•
Orders of Magnitude								•
2-D Coordinate Geometry								•
Exponents, Roots & Radicals								•
Percentages								•
Negative Numbers, Integers & Their Properties								•
Proportionality Concepts								•
Proportionality Problems								•
Rational Numbers & Their Properties								•
Constructions Using Straightedge & Compass								•
Systematic Counting								•
Uncertainty & Probability								•
Real Numbers & Their Properties								•
Congruence & Similarity								•
Slope								•
Validation & Justification								•
Estimating Quantity & Size								•

Fig. 3: Mathematics topics intended at each grade in top-achieving A+ countries (dots) compared to the CCSS (shaded)

# Coding Sloppiness:

Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number Meaning	●	●	●	●	●			
Whole Number Operations	●	●	●	●	●	■		
Properties of Whole Numbers Operations	■	■	■	■	■	■		
Fractions			●	●	●	●		
Measurement Units	●	●	●	●	●	●	●	●
Polygons & Circles	■	■	■	●	●	●	●	●
Data Representation & Analysis			●	●	●	●	●	●
3-D Geometry							●	●
Measurement Estimation & Errors		■	■				●	
Number Theory		■	■	■	■	■	●	●
2-D Geometry Basics		■	●	●	●	●	●	●
Rounding & Significant Figures			■	●	●			
Relation of Decimals & Fractions			■	●	●	●		
Estimating Computations			■	●	●	■	■	
Perimeter, Area & Volume			■	●	●	●	●	●
Equations & Formulas			●	●	●	●	●	●
Decimals			■	●	●			
Patterns, Relations & Functions			■	■	■	■	■	●
Geometric Transformations			■	■	■	■	●	●
Properties of Decimals & Fractions					●	●		
Orders of Magnitude					■	■	●	●
2-D Coordinate Geometry					●	●	●	●
Exponents, Roots & Radicals					■	■	●	●
Percentages					●	●	■	
Negative Numbers, Integers & Their Properties					●	●	●	●
Proportionality Concepts					●	●	●	●
Proportionality Problems					●	●	●	●
Rational Numbers & Their Properties					■	■	■	●
Constructions Using Straightedge & Compass	■	■	■	■	■	■	●	●
Systematic Counting	■	■	■	■	■	■	■	■
Uncertainty & Probability							■	■
Real Numbers & Their Properties							■	■
Congruence & Similarity							●	
Slope							●	
Validation & Justification							■	■
Estimating Quantity & Size				●	●			

To make it worse, even the coding of the Common Core standards by topics, done by their graduate students, is sloppy.

Incorrect coding!  
Both are high school topics in Common Core.



Topic Intended in Two-Thirds or More of Top Achieving Countries ●

Topic Intended in Common Core Standards ■

# State Standards Alignment with CCSSM

Table 2

*Degree of Congruence of State Standards as Compared to the Common Core State Standards for Mathematics*

Most like CCSSM  Least like CCSSM	Alabama	California	Florida	Georgia	Indiana
	Michigan	Minnesota	Mississippi	Oklahoma	Washington
	Idaho	North Dakota	Oregon	South Dakota	Tennessee
	Utah				
	Alaska	Arkansas	Colorado	Delaware	Hawaii
	Massachusetts	New Mexico	New York	North Carolina	Ohio
	Pennsylvania	South Carolina	Texas	Vermont	West Virginia
	Connecticut	Illinois	Maine	Maryland	Missouri
	Montana	Nebraska	New Hampshire	Virginia	Wyoming
	Arizona	Iowa	Kansas	Kentucky	Louisiana
Nevada	New Jersey	Rhode Island	Wisconsin		

Source: Schmidt & Houang, 2012

**This chart shows Schmidt & Houang assessment of State Standards in terms of similarity to the Common Core**

# State Standards Alignment with CCSSM

Table 2

*Degree of Congruence of State Standards as Compared to the Common Core State Standards for Mathematics*

Most like CCSSM  ↑  ↓  Least like CCSSM	Alabama	California	Florida	Georgia	Indiana
	Michigan	Minnesota	Mississippi	Oklahoma	Washington
	Idaho	North Dakota	Oregon	South Dakota	Tennessee
	Utah				
	Alaska	Arkansas	Colorado	Delaware	Hawaii
	Massachusetts	New Mexico	New York	North Carolina	Ohio
	Pennsylvania	South Carolina	Texas	Vermont	West Virginia
	Connecticut	Illinois	Maine	Maryland	Missouri
	Montana	Nebraska	New Hampshire	Virginia	Wyoming
	Arizona	Iowa	Kansas	Kentucky	Louisiana
Nevada	New Jersey	Rhode Island	Wisconsin		

Source: Schmidt & Houang, 2012

Top 10 states on 8<sup>th</sup> grade NAEP Math

Bottom 10 states on 8<sup>th</sup> grade NAEP Math

**Does this table indicate that states with standards most like the Common Core are the ones that did the best on the NAEP?**

# Indiana 2009 Standards

- Indiana 2006 standards were already rated 10 out of 10 by the Fordham Institute
- The 2009 standards are an improvement over Indiana 2006 standards
- A few years back I compared a draft of the Common Core with the TIMSS A+ countries and with California and Massachusetts state standards using a methodology similar to the Schmidt & Houang 2012 study.  
(Wurman, Z., Stotsky, S., “Why Race to the Middle”, Pioneer Institute, 2010)
- I replicated the analysis with Indiana 2009 standards.

TIMSS A+ Countries								
Topic	Grade							
	1	2	3	4	5	6	7	8
Whole Number: Meaning	■	■	■	■	■			
Whole Number: Operations	■	■	■	■	■	■		
Measurement Units	■	■	■	■	■	■	■	
Common Fractions	■	■	■	■	■	■	■	
Equations & Formulas	■	■	■	■	■	■	■	■
Data Representation & Analysis	■	■	■	■	■	■	■	
2-D Geometry: Basics	■	■	■	■	■	■	■	■
2-D Geometry: Polygons & Circles	■	■	■	■	■	■	■	■
Measurement: Perimeter, Area & Volume	■	■	■	■	■	■	■	■
Rounding & Significant Figures	■	■	■	■	■	■	■	
Estimating Computations	■	■	■	■	■	■	■	
Whole Numbers: Properties of Operations	■	■	■	■	■	■	■	
Estimating Quantity & Size	■	■	■	■	■	■	■	
Decimal Fractions	■	■	■	■	■	■	■	
Relation of Common & Decimal Fractions	■	■	■	■	■	■	■	
Properties of Common & Decimal Fractions	■	■	■	■	■	■	■	
Percentages	■	■	■	■	■	■	■	
Proportionality Concepts	■	■	■	■	■	■	■	
Proportionality Problems	■	■	■	■	■	■	■	
2-D Geometry: Coordinate Geometry	■	■	■	■	■	■	■	
Geometry: Transformations	■	■	■	■	■	■	■	
Negative Numbers, Integers, & Their Properties	■	■	■	■	■	■	■	
Number Theory	■	■	■	■	■	■	■	
Exponents, Roots & Radicals	■	■	■	■	■	■	■	
Exponents & Orders of Magnitude	■	■	■	■	■	■	■	
Measurement: Estimation & Errors	■	■	■	■	■	■	■	
Constructions Using Straightedge & Compass	■	■	■	■	■	■	■	
3-D Geometry	■	■	■	■	■	■	■	
Geometry: Congruence & Similarity	■	■	■	■	■	■	■	
Rational Numbers & Their Properties	■	■	■	■	■	■	■	
Patterns, Relations & Functions	■	■	■	■	■	■	■	
Proportionality: Slope	■	■	■	■	■	■	■	
Systematic Counting								
Uncertainty & Probability								
Real Numbers & Their Properties								
Validation & Justification								

Here is the 1995 mapping of the A+ countries that we have used all along

Topic	TIMSS A+ Countries																								
	Grade								Grade								Grade								
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
Whole Number: Meaning	•	•	•	•	•			•	•	•	•	•	•			•	•	•	•	•	•	•	•		
Whole Number: Operations	•	•	•	•	•			•	•	•	•	•	•			•	•	•	•	•	•	•	•		
Measurement Units	•	•	•	•	•			•	•	•	•	•	•			•	•	•	•	•	•	•	•		
Common Fractions			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Equations & Formulas			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Data Representation & Analysis			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
2-D Geometry: Basics			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
2-D Geometry: Polygons & Circles			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Measurement: Perimeter, Area & Volume			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Rounding & Significant Figures			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Estimating Computations			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Whole Numbers: Properties of Operations			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Estimating Quantity & Size			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Decimal Fractions			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Relation of Common & Decimal Fractions			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Properties of Common & Decimal Fractions			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Percentages			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Proportionality Concepts			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Proportionality Problems			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
2-D Geometry: Coordinate Geometry			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Geometry: Transformations			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Negative Numbers, Integers, & Their Properties			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Number Theory			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Exponents, Roots & Radicals			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Exponents & Orders of Magnitude			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Measurement: Estimation & Errors			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Constructions Using Straightedge & Compass			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
3-D Geometry			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Geometry: Congruence & Similarity			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Rational Numbers & Their Properties			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Patterns, Relations & Functions			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Proportionality: Slope			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Systematic Counting			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Uncertainty & Probability			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Real Numbers & Their Properties			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		
Validation & Justification			•	•	•	•	•			•	•	•	•	•			•	•	•	•	•	•	•		

Here we add two additional mappings:

- Indiana 2009 (Wurman, 2013)
- Common Core (Schmidt & Houang, 2012)

Can you tell which is which?

Topic	TIMSS A+ Countries								Indiana 2009								Common Core							
	Grade								Grade								Grade							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Whole Number: Meaning	•	•	•	•	•				•	•	•	•	•				•	•	•	•	•			
Whole Number: Operations	•	•	•	•	•				•	•	•	•	•				•	•	•	•	•			
Measurement Units	•	•	•	•	•				•	•	•	•	•				•	•	•	•	•			
Common Fractions																								
Equations & Formulas																								
Data Representation & Analysis																								
2-D Geometry: Basics																								
2-D Geometry: Polygons & Circles																								
Measurement: Perimeter, Area & Volume																								
Rounding & Significant Figures																								
Estimating Computations																								
Whole Numbers: Properties of Operations																								
Estimating Quantity & Size																								
Decimal Fractions																								
Relation of Common & Decimal Fractions																								
Properties of Common & Decimal Fractions																								
Percentages																								
Proportionality Concepts																								
Proportionality Problems																								
2-D Geometry: Coordinate Geometry																								
Geometry: Transformations																								
Negative Numbers, Integers, & Their Properties																								
Number Theory																								
Exponents, Roots & Radicals																								
Exponents & Orders of Magnitude																								
Measurement: Estimation & Errors																								
Constructions Using Straightedge & Compass																								
3-D Geometry																								
Geometry: Congruence & Similarity																								
Rational Numbers & Their Properties																								
Patterns, Relations & Functions																								
Proportionality: Slope																								
Systematic Counting																								
Uncertainty & Probability																								
Real Numbers & Their Properties																								
Validation & Justification																								

Which one seems more:

- Coherent?
  - Similar order of progression
- Focused?
  - Tightly spread across grades

It is impossible to say!

# Indiana 2009 Standards: Findings

- Are as close to the A+ standards as are the Common Core standards
- Are more rigorous, in that many of the more demanding content is in grade 7 rather than in grade 8 as in CC
- Have clearer and better developed K-8 content with the possible exception of common fractions.
- Have better defined and more complete high school math content for Algebra 1/Algebra 2/Geometry/Pre-Calculus

# Indiana 2009 Standards: Findings

- Are more rigorous, in that many of the more demanding content is in grade 7 rather than in grade 8 as in CC

*Note how Indiana standards introduce new content in a sustained manner across multiple grades, unlike the Common Core mostly in grades 6 and 8.*

Table 9. Average Redundancy and Percent New Content in Content Standards from Grade to Grade

Grades	All States		States with K–8 Standards		Common Core Standards		Indiana standards	
	Redundancy	New Content	Redundancy	New Content	Redundancy	New Content	Redundancy	New Content
K & 1	.47	.38	.50	.36	.41	.39	<b>.38</b>	<b>.46</b>
1 & 2	.53	.29	.53	.28	.60	.19	<b>.41</b>	<b>.34</b>
2 & 3	.46	.34	.46	.33	.37	.35	<b>.27</b>	<b>.54</b>
3 & 4	.40	.37	.33	.41	.35	.50	<b>.32</b>	<b>.57</b>
4 & 5	.45	.32	.42	.35	.41	.34	<b>.44</b>	<b>.30</b>
5 & 6	.36	.42	.39	.41	.22	.71	<b>.23</b>	<b>.66</b>
6 & 7	.37	.43	.36	.41	.35	.54	<b>.23</b>	<b>.64</b>
7 & 8	.36	.42	.39	.40	.17	.70	<b>.23</b>	<b>.53</b>

Source: Polikoff, M., *The Redundancy of Mathematics Instruction in U.S. Elementary and Middle Schools*, Elem. Sch. J., 2012. **Indiana data provided by the Author.**

# Indiana 2009 Standards: Findings

- **Have clearer, more rigorous, and better developed K-8 content with the possible exception of common fractions.**

**Example: Converting between fractions, decimals and percents**

*Note the full development in Indiana vs. barely touching on a single case in CC*

Indiana 2009

Common Core

**4.1.3 Write decimals as fractions**

**6.1.4** Recognize commonly used fractions, decimals, and percents and their equivalents and **convert between any two representations** of any non-negative rational number without the use of a calculator.

**6.1.6** Solve problems involving addition, subtraction, multiplication and division of **positive fractions and decimals** and explain why a particular operation was used for a given situation.

**7.NS.2.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.

# Indiana 2009 Standards: Findings

- **Have clearer, more rigorous, and better developed K-8 content with the possible exception of common fractions.**

## **Example: Area of Triangles & Circles**

*Note the difference between “develop” and “find” or “know”*

Indiana 2009

Common Core

**5.3.5 Develop** and use the formulas for the perimeter and area of triangles, parallelograms and trapezoids using appropriate units for measures. Find the area of complex shapes by dividing them into basic shapes.

**6.3.3 Develop** and use the formulas for the circumference and area of a circle.

**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.

**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

# Indiana 2009 Standards: Findings

- **Have clearer, more rigorous, and better developed K-8 content with the possible exception of common fractions.**

## **Example: Sum of Angles in a Triangle**

*Note the earlier and fuller development in Indiana Standards  
Indiana 2009* *Common Core*

**6.3.1 Identify, draw and use** the properties of vertical, adjacent, complementary, and supplementary angles, and properties of triangles and quadrilaterals, to solve problems involving a missing angle.

**6.3.2 Recognize** that the sum of the interior angles of any triangle is  $180^\circ$  and that the sum of the interior angles of any quadrilateral is  $360^\circ$ . Use this information to solve problems..

**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.

**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.

# Indiana 2009 Standards: Findings

- Have better defined and more complete high school math content for Algebra 1/Algebra 2/Geometry/Pre-Calculus

See testimony of Fabio Augusto Milner on Jan. 24, 2012 to Indiana Senate

- richer manipulation of rational expressions;
- problems with direct, inverse, joint, and combined variations;
- division of polynomials;
- parametric equations;
- functions in polar form;
- more extensive conic sections;
- richer trigonometry.

**Talking Points on Common Core State Standards  
Hoosier Association of Mathematics Teacher Educators  
Remarks for the Interim Study Committee on Common Core Educational  
Standards  
August 5, 2013**

My name is Enrique Galindo; I am president elect for the Hoosier Association of Mathematics Teacher Educators, also known as HAMTE. Members of our organization include mathematics education professors in higher education institutions all over the State of Indiana. Our members are involved in preparing tomorrow's teachers, and in research and professional development across the State. I am a mathematics education professor at Indiana University where I teach mathematics methods courses, work with graduate students in mathematics education, and with K-12 teachers. I am also the proud parent of a teenager who has benefitted from the excellent public schools we have in Indiana, in my case in Bloomington Indiana, and I am proud of the preparation he has received and of the great teachers that he has had every year in our public schools. I am going to speak in support of CCSSM on behalf of our organization HAMTE.

In June 2010 several education organizations jointly released a statement supporting Common Core, these organizations include the National Council of Teachers of Mathematics (NCTM), the National Council of Supervisors of Mathematics (NCSM), the Association of State Supervisors of Mathematics (ASSM), and the Association of Mathematics Teacher Educators (AMTE). Our organization, The Hoosier Association of Mathematics teacher Educators (HAMTE) endorses this statement, which can be found online at the following address.  
<http://www.nctm.org/standards/content.aspx?id=26088>

We are not alone in this effort, a few days ago the Conference Board of the Mathematical Sciences (CBMS) representing mathematics-affiliated professional societies in the United States, released a "Statement by Presidents of CBMS Member Professional Societies" which supports the Common Core State Standards for Mathematics. CBMS includes all major professional organizations of mathematicians, including the American Mathematical Society, the Mathematical Association of America, the American Statistical Association, the National Association of Mathematicians, the Association for Women in Mathematics, and the Association for Symbolic Logic. Among other things in their statement they say:

"Much remains to be done to implement the standards, in curriculum, assessment, and teacher education. But we now have, for the first time in our history, a common blueprint for this work across state lines. This is not the time to turn away from our good fortune."

See the full statement at:

[http://amte.net/sites/all/themes/amte/resources/ccssm/CCSSM\\_SupportStatement.pdf](http://amte.net/sites/all/themes/amte/resources/ccssm/CCSSM_SupportStatement.pdf)

## Why Common Core?

I am going to address seven main reasons behind our support of CCSSM.

### CCSSM are Coherent, Focused, and Rigorous

- They give us the opportunity to move away from long lists of learning expectations
- We can finally move away from a “mile wide inch deep” curriculum, which has not allowed teachers and students to focus on the most important mathematics at particular grade or instructional (elementary, middle, and high school) levels
- By having coherent and focused expectations parents, teachers, students and administrators can know what is expected of them.

### CCSSM are Research Based

- CCSSM build on research regarding student learning and on learning trajectories. Researchers have argued the need for students to develop direct modeling and reasoning strategies before standard algorithms.

### CCSSM Include the Standards for Mathematical Practice

- CCSSM go beyond specifying important content our students need to learn and include processes and levels of proficiency that have long standing tradition in mathematics education. The CCSSM include eight mathematical practices, including: Make sense of problems and persevere in solving them; Construct viable arguments and critique the reasoning of others; Use appropriate tools strategically; Look for and make use of structure.

### CCSSM are Designed for College and Career Readiness

CCSSM Focus on college and career readiness to help prepare students with the skills they need to succeed in education and training beyond high school, whether their destination is career or higher education.

### CCSSM Address Equity

CCSSM represent consistent expectations for all students. It is more important than ever that we give all students equal opportunities to thrive in our technology-driven world in which reasoning, problem solving, and sense making are essential to succeed.

### Advantage of Common Standards

- By having CCSSM education can be improved more broadly
- We benefit from economies of scale. Everyone can benefit from textbooks, materials, professional development, assessments, and other resources that are produced.
- Teachers and educators can share best practices.

- Provide incentives to work together.
- Everyone can benefit from expertise in developing resources and implementation.
- Schools, districts, and states can share strategies for implementation; students moving across, school, school district, and state lines, should be able to transition to the CCSS much easier than with state standards which ranged from 32 – 106 standards in a given year.

#### CCSSM Ensure Competitiveness

CCSS are Internationally benchmarked to ensure our students are globally competitive.

### **What the Critics in Indiana Are Saying**

I will now address four issues that critics of the CCSSM have raised in Indiana.

- Some critics state that the common core math standards have been proven to be less rigorous than our former Indiana standards.  
This is false, a study by the Fordham Institute gave the CCSSM a Content and Rigor score of seven points out of seven.
- Some critics fear that adopting Common Core means that the federal government will dictate what education in our state will be like and takes away the State's ability to take care of its own children the way it wants.  
In a study by professor Schmidt and his colleagues they studied ten countries that have excelled in the Trends in International Mathematics and Science Study (TIMSS), including Brazil, Canada, China, France, Germany, India, the Netherlands, Russia, and Singapore. They found that it is not true that national standards resulted in loss of local control; in fact in many cases national standards marked the beginning of more autonomy at the local level.  
See more at:  
[http://www.edexcellencemedia.net/publications/2009/200908\\_internationallessons/20090826\\_International\\_Lessons\\_Report.pdf](http://www.edexcellencemedia.net/publications/2009/200908_internationallessons/20090826_International_Lessons_Report.pdf)
- Some critics claim that the Common Core's definition of college readiness is very low level. This is false too. The study by the Fordham Institute found "In high school . . . most of the essential content is covered including the STEM-ready material. The standards receive a Content and Rigor score of seven points out of seven."  
See more at:  
[http://www.edexcellencemedia.net/publications/2010/201007\\_state\\_education\\_standards\\_common\\_standards/SOSSandCC2010\\_FullReportFINAL.pdf](http://www.edexcellencemedia.net/publications/2010/201007_state_education_standards_common_standards/SOSSandCC2010_FullReportFINAL.pdf)

On this same topic, Professor Jason Zimba, a leading author of the CCSSM recently wrote about this topic. He stated:

“The Common Core has every promise of increasing the number of students in our country who actually attain advanced levels of performance. Nothing is being “dumbed down” here. Just because the Common Core State Standards end with Algebra II doesn’t mean the high school curriculum is supposed to end there.”

See more at:

<http://www.edexcellence.net/commentary/education-gadfly-daily/common-core-watch/2013/critics-math-doesnt-add-up.html>

- Some critics have argued that the Common Core Standards are behind international expectations, this is false too. Professor William Schmidt from Michigan State University, and his colleague Richard Houang, conducted a study of curricular coherence of the CCSSM. They found a very high degree of similarity between CCSSM and the standards of the highest-achieving nations on the 1995 Trends in International Mathematics and Science Study (TIMSS). Professor Schmidt states:

“This is probably the best chance we’ve had to improve America’s mathematics education in 50 years if not more,” Schmidt said. “We finally have standards that are comparable to what the top-achieving countries have. It would be foolish for Michigan or any other state to pull back now.” - See more at: <http://edwp.educ.msu.edu/news/2012/study-supports-move-toward-common-math-standards/>

Teachers in Indiana have been working for several years understanding the CCSSM and learning how to implement them, let’s stop losing valuable time and focus on implementation. We owe it to our students in Indiana.

Thank you Senator Kruse and Representative Behning, and members of the committee. I am Glen Kessel, an Associate Professor of Engineering at the University of Southern Indiana in Evansville. I am speaking today as a private citizen.

I will make three points in my testimony.

(1) Federalism: The principle of federalism embodied in the Tenth Amendment has been considered so important with respect to K-12 education that the federal government itself has three laws which ban the federal government from directing, supervising or controlling K-12 school curricula, programs of instruction and instructional materials.

However, the Common Core Standards may very well be in violation of these three federal laws, according to a White Paper by the Pioneer Institute.

Why should Indiana run the risk of enabling a violation of three federal laws and the Tenth Amendment federalism principle with the Common Core Standards, when the use of the superior Indiana Academic Standards could avoid that problem altogether?

(2) Mediocrity of skills-driven standards: In her January 16, 2013 testimony on SB 193 to Senator Kruse's committee, Professor Sandra Stotsky clearly explained the flaws in the Common Core English/language arts standards, noting that they were "chiefly empty skills sets," as opposed to superior standards which produce a "literature-rich," knowledge-based curriculum.

But she also warned that the superior Indiana Academic Standards are not immune to being undermined. As Professor Stotsky signaled in her important January 16 testimony: defects in schools of teacher education, educator licensure and educator professional development have apparently inhibited student learning even under the Indiana Academic Standards.

In my view, Professor Stotsky has pinpointed the key source of educational trouble in our nation, and that which undermines the Common Core Standards and the Indiana Academic Standards: those engines of mediocrity, the schools of teacher education. The red flags of their skills-based mediocrity are legion: student-centered learning, integrative projects, learning to learn, hands-on discovery, ways of knowing, critical thinking skills, and whole language.

Rather, educational standards and curricula built upon domain-specific, subject-specific content knowledge are the most practically effective, and actually build intellectual skills.

Legislators, if anything, the demise of the Common Core Standards in Indiana should also lead you to pinpoint the real problem in K-12 education. Which brings me to my final point.

(3) What is the purpose of a public education?

Is it to produce students who are "college and career ready," namely to prepare students for work in a global economy, as the Common Core Standards tout?

Or is it, as Jane Robbins suggests, to ensure that our public school graduates are educated citizens who can engage in public discourse, exercise their liberties, and step forward as citizen leaders?

How you and we, the citizens of Indiana, answer that question could do more than just result in the dumping of the inferior skills-laden Common Core Standards, but could actually give Hoosier children an education they finally deserve.

I am Schauna Findlay. I serve as the Chief Academic Officer of Goodwill Education Initiatives. I also work with many school districts and the Education Service Centers to deliver training on curriculum and assessments. I am a member of the PARCC consortium English Language Arts content work group and serve as the President of Indiana ASCD, our state's affiliate of the national Association for Supervision and Curriculum Development. Today we have heard many compelling reasons why it is critical for Indiana to move forward with implementation of the Indiana Common Core State Standards from Indiana educators.

Our current 2000 and 2009 math standards received an A rating because of the dense amount of content in each grade level. The 2009 standards were tabled by the State Board and never implemented. If we had a table showing the 2000 standards similar to that which was shown of the 2009 standards in the opposition testimony, you would see a shape like a block, not a triangle. Indiana's standards revisit many of the same topics over and over year by year going a little deeper each time. Because these standards must be tested on our ISTEP+ test, teachers are forced to cover the material, whether students have learned it or not, to try to get them ready for this test. This rush to cover standards leaves many students with misconceptions because their teachers are not allowed to go deep into a topic and ensure students have learned the content. It is the piling on of misconceptions year after year that makes it so difficult for many Hoosier students to excel in the fields of science, engineering, and mathematics. The Common Core Math Standards are designed with much greater focus, coherence, and rigor allowing teachers to spend time developing important concepts and ensuring students will retain what they have learned compared to the 2000 standards we are teaching and testing. Senator Skinner asked if it would be possible for students to move from their current underperforming level to this new more rigorous level. Because teachers can be much more focused, ensure conceptual understanding, and help students develop fluency, I believe our students absolutely can be successful with these higher standards. Testimony from Indiana's teachers shared today proves that so far.

Our teachers are accountable for student achievement based on the ISTEP+ test. The ISTEP+ test is based on Indiana's standards. This test requires students to answer questions which do not demand rigorous thinking and problem solving and in fact encourages teachers to spend time on tasks which require low levels of cognitive demand.

As we have heard today, we must have a test worth teaching to, and since the standards themselves drive the assessments which measure student learning, we must have standards that demand rigorous thinking and problem solving. Let me illustrate the difference in what Indiana's standards require of students compared to what the Common Core requires.

An English 10 question based on Indiana's standards given this spring asked students to write an essay based on this prompt.

Americans, including teenagers, have become increasingly busy. Many high school students have difficulty managing their time. Consider how high school students can balance busy schedules with healthy lifestyles.

Write a persuasive essay about how you would encourage incoming freshmen to manage their time and maintain a healthy lifestyle. Support your proposal with convincing, concrete solutions to this problem.

By contrast an essay question based on the Common Core State Standards would require 10<sup>th</sup> grade students to do the following (this is a PARCC prototype item):

Use what you have learned from reading "Daedalus and Icarus" by Ovid and "To a Friend Whose Work Has Come to Triumph" by Anne Sexton to write an essay that provides an analysis of how Sexton transforms "Daedalus and Icarus."

As a starting point, you may want to consider what is emphasized, absent, or different in the two texts, but feel free to develop your own focus for analysis.

Develop your essay by providing textual evidence from both texts. Be sure to follow the conventions of standard English.

The ability to compare and synthesize ideas across multiple texts is a critical skill for college and careers as is the ability to analyze the strength of various arguments. The writing prompts based on Indiana's standards have not called for the use of textual evidence in a student's response. The Common Core State Standards require students to delve deeply into multiple texts to gather evidence when analyzing a given claim, a key shift in the Common Core. In college and in career training, students are not asked to

write to empty prompts based solely on their opinions. Students are asked to cite evidence and to analyze the strength of arguments. The Common Core standards prepare students for these requirements. Indiana's standards do not.

If we followed Stotskey's recommendation, we would continue to have students learn Indiana's 2006 English/language arts standards. While the literature standards which she indicated were so critical for college success are nearly identical to the Common Core, the informational text standards are not, which explains our ranking in the bottom third of states on the NAEP assessment. Indiana's standards require activities like the following:

10.2.2 Extend—through original analysis, evaluation, and elaboration—ideas presented in primary or secondary sources. Example: Read first-hand accounts and newspaper accounts of an historical event, such as the sinking of the *Titanic*, and compare them to more recent texts about the event.

and

10.2.3 Demonstrate use of sophisticated technology by following technical directions. Example: Follow the directions to use a spreadsheet or database program on the computer. Follow the directions to download informational text files or articles from a Web site.

By contrast, let me share with you some of the informational text standards of the Common Core.

RI.8 Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., *The Federalist*, presidential addresses).

RI.9 Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including *The Declaration of Independence*, the Preamble to the Constitution, the Bill of Rights, and Lincoln's Second Inaugural Address) for their themes, purposes, and rhetorical features.

These are the actual words and recommended texts from the standards. These are not “Mickey Mouse” documents being required in the standards as a previous speaker suggested.

Because Indiana educators and educational leaders have embraced the Common Core State Standards, significant efforts have already been undertaken to transition to these standards. This is due in large part to the belief that these standards are better for Hoosier children and will move our state forward in attaining college- and career-readiness levels. Evidence of this commitment is proven by Indiana ASCD being a recipient of a \$250,000 grant in partnership with each of the education service centers, the Indiana Association of School Principals, and the department of education, which will be supported by the national ASCD organization. This grant was awarded to states who will use existing networks for teacher training where significant commitment to improving education through the implementation of these standards exists. Beyond multiple organizations coming together to support the Common Core effort, direction from IDOE and commitment from individual districts has already taken our state toward a strong implementation of the Common Core State Standards.

These documents provide additional evidence of these efforts. Based on the implementation timeline provided by the IDOE, these are all of the Common Core State Standards that IDOE has said to teach for ELA (the entire set held up, more than 100 pages). These are all of the Common Core math standards that are to be implemented thus far according to the IDOE implementation timeline (more than 100 pages held up). These are the math standards yet to be implemented (only 7 pages held up). We have nearly made a full transition to Indiana’s Common Core State Standards.

I would also like to speak to the question of not being able to change these copyrighted standards and being beholden to what someone else decides. As Superintendent Ritz stated, there are two ways we can achieve the required college- and career-readiness standards—we can adopt the Common Core as they are with the option to add up to 15% additional content, or we can create our own standards, which can be based however we wish related to the Common Core so long as we have our Indiana colleges and universities validate that they will ensure our students are college- and career-ready. I appreciate the many Indiana higher educators who spoke today who are at the table for these conversations, the vast majority of whom spoke in favor of the Common Core. While, the second option leaves the door open for us to be able to change the Common

Core standards however Indiana deems necessary, I do want to caution that another change in math content standards could lead to even greater gaps in student preparation and leave the possibility that we could have an ISTEP+ test that is testing content that students have not been taught setting us up for further concern with our state test and gaps in student learning.

From: **MARY KITTINGER** <[mkkitt@msn.com](mailto:mkkitt@msn.com)>  
Date: Fri, Aug 2, 2013 at 11:43 PM  
Subject: **Common Core Testimony - AGAINST**  
To: "[jim.bratten@gmail.com](mailto:jim.bratten@gmail.com)" <[jim.bratten@gmail.com](mailto:jim.bratten@gmail.com)>

My name is Mary Kittinger, and I am strongly opposed to the Common Core which I view as a civil rights violation.

The U.S. Constitution does not authorize the Executive Branch to create or require a federal course of study for all children while bypassing the people. Common Core includes the content and the process of education by establishing standard outcomes, their evaluation, the use of individuals' test results, and the intended sharing of individual student data (and perhaps parent data) with other agencies.

Further, in my opinion, establishing requirements to test and to use results whether by the Executive Branch alone, or acting in concert with other public or private or tax-exempt or for-profit companies and/or organizations, or with agencies of the federal government is a violation of the Fourth Amendment's ***right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures*** whether those effects are health matters, grades, test results, counseling assessments, or individual student characteristics.

Student data should not be fed into a system that tracks children throughout their schooling, stalks children and families by connecting the dots, or otherwise data-mines family/student personal data and records for judging the individual's performance and potential or limitations for success. In that case, what could be next? Consider a project of China's Beijing Genome Institute (BGI) to study the DNA of school children [not a cheek swab but one's entire genetic code – the genome] and associations with their "educational test scores." See The \$100 Genome: Implications for the DoD. Jason Report No. JSR-10-100, December, 2010, p.21. (obtained from a link in the article at [http://www.huffingtonpost.com/2011/01/13/genetic-soldiers-advisory\\_n\\_808907.html](http://www.huffingtonpost.com/2011/01/13/genetic-soldiers-advisory_n_808907.html) retrieved 03/01/2011).

A testimony from Berniece Tirmenstein from Evansville, Indiana.

You may ask why a lady of 86 years of age would be so concerned in speaking out against Common Core Standards in Education in Indiana. My children, my grandchild and great grandchild do not live in Indiana. Then why am I working hard to inform, educate people about it? It's because I believe in a better tomorrow for our children. I believe our children deserve the best education they can get. I believe their education is best implemented on the local level - get the federal government out of it. Each school district knows best the problems they face. If CCSS becomes a reality in Indiana, we will have lost control of WHAT is being taught and HOW our children are taught. Teachers will have a work load that requires them to gather and meet crazy data collecting material/requirements shared by third party for their profit. The lessons are ridiculous; I have seen the lessons. It is about dumbing down students. Good teachers will leave, replaced by test facilitators and a computer. We have no idea of cost to taxpayers. I think it is bad.

While attending an Evansville Vanderburgh County School Board meeting in July, 2013 the Chief Administrative Officer responded to my speech to board members and the superintendent by saying people are just beginning to get involved finding what it is all about.

Yes, CCSS is on Pause. What we do with that pause is all important. Do we sit back, do nothing, or do we answer the call to action?

April, 2012 I was commissioned a Kentucky Colonel, given in recognition of my involvement in the community to make it a better place in which to live. I am humbled by that recognition and will keep on trying to accomplish that goal.

Berniece Tirmenstein, R.N., B.S.N.  
August 4, 2013