

Indiana Department of Education's STEM Integration Grant

2024-2025

Indiana Department of Education

100 N. Senate Ave. Indianapolis, IN 46204



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Grant Overview

Design for Impact: Next Level Computer Science Grant			
Grant Period	Monday, July 1, 2024, through Sunday, June 30, 2025		
Application Release Date	Friday, May 17, 2024		
Application Due Date	Friday, June 7, 2024		
Submission Process	2024-2025 STEM Integration Grant Application		
Eligibility	This competitive grant opportunity is open to school corporations, charter schools, and other entities that meet the following criteria: • Agree to the Statement of Assurances; and • Create a sustainability plan to continue implementation after grant funds have been exhausted.		
	Number of Students Served Maximum Allocation		
	< 1,000	\$25,000	
Maximum Award Level	1,000 - 1,999	\$50,000	
	2,000 - 9,999	\$75,000	
	10,000 +	\$100,000	
Grant Award Notification	Late June through early July 2024		

Grant Summary

The Indiana General Assembly appropriated funding in Fiscal Year 2025 to the Indiana Department of Education (IDOE) for STEM Program Alignment. The STEM Integration Grant is designed to improve elementary and secondary student achievement and participation in science, technology, engineering, and mathematics (STEM) learning experiences across the state of Indiana. Through these targeted funds, IDOE will help grantees enhance student success by accelerating students' exposure to and learning in the STEM disciplines. This grant opportunity is designed to achieve these **key results** in alignment with <u>Indiana's Priorities for STEM Education</u>:

- Implement sustainable STEM professional development to promote implementation of the 2023 Integrated STEM Standards;
- Create learning environments that promote growth in critical thinking, problem-solving, and other STEM skills; and
- Increase student access to high-quality STEM learning opportunities and resources.

A key strategy to meet the priorities is through implementation of *integrated* STEM education.

Purposeful integration of science, technology, engineering, and mathematics through an engaging and motivating, student-centered pedagogy and curriculum promotes student engagement in solving real-world problems using inquiry-based learning, problem-based learning, and engineering design practices. Compelling grant proposals will be refined in scope and clearly describe a plan to implement Indiana's Integrated STEM Standards to develop Indiana's next generation of innovators and entrepreneurs.

IDOE recognizes that Artificial Intelligence (AI) literacy is becoming an integral part of personalized learning across all content areas. According to this guidance, AI literacy is the intersection of how to use AI and how AI works. IDOE's Office of Digital Learning provides grant opportunities to support the adoption and use of AI platforms to assist students and educators in learning how to use AI tools. This STEM Integration grant supports opportunities for educators to receive professional development to teach students the computer science behind how AI works. Therefore, funds from this grant opportunity may not be used to purchase AI powered platforms or tools.

Grant Eligibility

This competitive grant opportunity is open to school corporations, charter schools, and other entities that meet the following criteria:

- Agree to the grant assurances (see below); and
- Create a sustainability plan to continue implementation after grant funds have been exhausted.

Grant Assurances:

- 1. The school corporation's submitted application is complete and accurate.
- 2. Grant funds will be used only for the following:
 - a. Professional development;
 - b. Teacher stipends;
 - c. Curriculum/materials;
 - d. Contracted services: and/or
 - e. Other expenses approved by IDOE that promote research-based, best practices in integrated STEM education.
- 3. If computer science programming is in need of development, expansion, or improvement, the school corporation will identify staff members to complete free computer science training made available by IDOE pursuant to Indiana Code 20-20-45.
- 4. The school corporation certifies it will participate in all reporting, monitoring, and evaluation activities as required by IDOE, Indiana Code, or State Board of Accounts audits.
- 5. The school corporation will maintain accurate records relating to this grant locally.
- 6. The school corporation will ensure reimbursement requests are accurate, reflect only approved grant activities, and will be accompanied by supporting documentation upon submission to IDOE.

- 7. The school corporation will submit a budget modification form or request for an amendment to IDOE if projected use of grant funds changes.
- 8. The school corporation confirms it will not implement such changes until or unless written approval from IDOE has been received.
- 9. The superintendent and finance/business director have reviewed and approved the grant application.
- 10. All travel for this agreement is done on behalf of IDOE, and the Indiana state travel policy will be followed.

Application Overview

To achieve the key results of the STEM Integration Grant program, funds may be used to support one of the following strands:

Strand 1: STEM-S

STEM-S involves professional learning and planning activities for implementation of phenomenon-based, three-dimensional instruction that integrates science and engineering practices, technology, and mathematics in the science classroom. A grant application could include (but is not limited to):

- Training opportunities to develop curriculum that connects the 2023 Indiana Science Standards and the 2023 Integrated STEM Standards.
- Administrator training on the role of engineering, technology, and mathematics as they
 relate to science and engineering practices, disciplinary core ideas, and crosscutting
 concepts in the 2023 Indiana Science Standards.
- Materials and curricular support for integrating technology and mathematics in science units of study based on the 2023 Indiana Academic Science Standards.

Strand 2: STEM-C

STEM-C involves professional learning and planning activities for integrating computer science in STEM by cultivating the connection between science, technology, engineering, mathematics, and computer science. An application could include (but is not limited to):

- K-12 training opportunities in hands-on problem solving that connects engineering and design problems to physical computing solutions.
- K-12 training opportunities to integrate the 2023 K-8 Indiana Computer Science Standards and the Applications and Modeling domain of the <u>2023 Integrated STEM</u> <u>Standards</u> in mathematics and science classes.
- Development of a STEM leadership team with a mission to integrate and increase access to computer science opportunities for underserved student populations.

Strand 3: STEM-M

STEM-M involves professional learning and planning activities for integrating STEM pedagogy within the instruction of mathematics by cultivating connections between science, technology, engineering, and mathematics. An application could include (but is not limited to):

- K-12 training opportunities for the implementation of the 2023 Indiana Academics Standards for Mathematics through hands-on, problem-based instructional strategies.
- Integration of the following domain from the 2023 Integrated STEM Standards into the mathematics classroom: Data Analysis and Measurement and/or Applications and Modeling.

Strand 4: STEM-H

STEM-H involves professional learning and planning activities for integrating STEM pedagogy within and across the STEM disciplines and the humanities (non-STEM disciplines). An application could include (but is not limited to):

- K-12 training opportunities to develop a transdisciplinary STEM approach to solving community problems. Transdisciplinary STEM approaches embed learning in real-world problem solving that requires interconnected and interdependent knowledge across multiple disciplines.
- Implementation of the 2023 Integrated STEM Standards in non-STEM disciplines designed to increase STEM exposure for student populations underserved in traditional STEM classes.

The STEM Integration Grant is a competitive grant. Therefore, IDOE will prioritize applications with a clear focus and achievable goals related to the implementation of the 2023 Integrated STEM Standards within one grant strand. Applicants are advised to prioritize a well defined scope of proposed grant activities that support the chosen grant strand rather than applying for multiple grant strands to achieve maximum funding.

Data Collection Requirement: Eligible entities receiving a grant award are required to participate in data collection throughout the grant cycle. In addition to check-ins on general grant implementation, at the beginning and end of the 2024-2025 academic year, awardees will administer a survey provided by IDOE to educators participating in the proposed grant activities. The survey is brief and requires educators to rate student engagement with problem-solving and critical thinking.

Application Components

Applications including a grant narrative, budget summary (Excel format), and a budget narrative should only be submitted once after finalizing each component. The online form for submitting application materials can be found here. The sample scoring rubric for meeting grant criteria is outlined below.

Grant Narrative		
Section	Points Possible	
a. STEM Program Alignment	18	
b. Sustainability	9	

Budget Narrative (Pass or Fail)	12
Budget Summary (Pass or Fail)	12
Total	51

When completing application components, please refer to the rubrics below which outline requested information and scoring criteria.

Grant Narrative

When completing the grant narrative, refer to the rubric to identify required information to support scoring the metric on the rubric (see below).

Domain 1: STEM Program Alignment

Successful grant applications will:

- **1.1:** Identify the strand of the grant you seek to address and use local data to explain why this strand was chosen.
- **1.2:** Provide evidence that research/investigations have been conducted to show that the proposed grant activities support the implementation of the <u>2023 Integrated STEM Standards</u>.
- **1.3:** Describe how the proposed plan to integrate STEM aligns to <u>Indiana's Priorities for STEM Education</u> and the goals of the <u>2023 Integrated STEM Standards</u>.
- **1.4:** Describe a detailed plan for STEM instructional approach training based on the selected grant strand.
- **1.5:** Describe a detailed plan for providing ongoing instructional support for the implementation of proposed activities.
- **1.6:** Describe a system and process for collecting the required data from teachers participating in the grant activities.

Domain 2: Sustainability

Successful grant applications will:

- **2.1:** Clearly describes an implementation plan for proposed activities within the grant cycle and sustainability in subsequent school years beyond the grant cycle.
- **2.2:** Provide evidence that required technology necessary to implement proposed grant activities is in place prior to implementation.
- **2.3:** Provide a detailed plan to actively engage STEM mentors and community partners in proposed grant activities.

Budget Narrative & Summary

Keeping in mind the maximum award amounts, complete the following:

Number of Students Served	Maximum Allocation	
< 1,000	\$25,000	
1,000 - 1,999	\$50,000	
2,000 - 9,999	\$75,000	
10,000 +	\$100,000	

- 1. Complete the budget narrative within the online application form.
- 2. Complete the budget summary template and upload it to the online application form.

The budget narrative and summary will be evaluated on a pass/fail basis based on the following criteria. Grant funds must be reasonable, allocable, and necessary to fulfill the objectives of the grant. Evaluators will cross reference the budget to the grant narrative. Any expenses listed on the budget narrative or summary that do not align with the described program may result in a fail.

In preparation for this grant opportunity, applicants should identify the strand they seek to prioritize and determine the community partners and STEM Mentors who will help meet those needs. After developing the budget, eligible entities can apply for the following reimbursable expenses:

- Personnel
- Travel
- Supplies/curriculum materials
- Contracted services

- Teacher stipends
- Software and technology
- Virtual programming

Grant funds may *not* be used for the following unallowable expenses:

- Non-academic entertainment
- Preparation of the initial grant application prior to Monday, July 1, 2024
- Pre-award costs incurred prior to Monday, July 1, 2024
- Decorative items
- Purchase of facilities or vehicles
- Land acquisition

- Capital improvements
- Permanent renovations
- Food
- Indirect costs (costs that cannot be easily parsed to a particular funding line, such as the cost of preparing payroll or paying utilities)
- Al powered platforms or tools
- Purchasing or replacing 1:1 devices

Reimbursement

The STEM Integration Grant is a reimbursement grant and will be administered as follows:

• Funding will be reimbursed to grant recipients after the expenses have been incurred within the grant period;

 Reimbursement forms and directions will be provided after the grant contracts have been fully executed.

State Contracting

The state of Indiana requires contract vendors to be registered with the state through three separate agencies: the Secretary of State's Office, the Indiana Department of Administration, and the State Comptroller's Office. If you are currently not registered or inactive with your registration, please see the information below for assistance.

Secretary of State's Office: Review Indiana's Secretary of State <u>website</u> or call 317-232-6581 to determine if your registration is required. Verify your organization's registration <u>here</u>. *Please note that individuals are not required to register with the Secretary of State's Office*.

State Comptroller's Office: If you are not currently registered as a vendor in Indiana, complete and submit the <u>W-9</u> and <u>direct deposit</u> forms and submit to accounts payable with the Auditor of State's Office at <u>accountspayable@doe.in.gov</u>. Direct deposit by electronic funds transfer is required by <u>IC 4-13-2-14.8</u> unless a waiver is obtained from the State Comptroller's Office.

Indiana Department of Administration: IDOE uses the Indiana Department of Administration's Supplier Contract Management System (SCM) for processing contract and grant agreements between the state and vendors. To meet the requirements of SCM and accomplish this collaboration on your agreement(s), your organization must register to use the SCM system. Instructions for bidder profile registration are located here. The Supplier Portal can be accessed here.

Registrations may take several weeks to complete and are required for submission of the grant application. It is the lead applicant's responsibility to ensure registration with all three of the above agencies is completed prior to the grant deadline. Failure to register with the above will result in dismissal from the review process.

Submission

Submissions of the grant narrative, budget summary, and budget narrative for the 2024-2025 STEM Grant Application are due by 11 a.m. ET on Friday, June 7, 2024.

Grant notifications will be released in late June or early July of 2024. Contact IDOE's <u>Office of Teaching and Learning</u> with any questions regarding this grant.

Evaluation Rubrics

Grant Narrative Scoring Rubric

Domain 1: STEM Program Alignment				
Criteria	Investigating (0 points)	Developing (1 point)	Approaching (2 points)	High Impact (3 Points)
1.1: Identify the strand of the grant you seek to address and use local data to explain why this strand was chosen.	No specific grant strand or key results are referenced in the proposal.	The application addresses more than one grant strand.	The application addresses one grant strand and key results are explained with adequate detail.	The application addresses one grant strand and key results are explained with significant, well developed details.
1.2: Provide evidence that research/investigations have been conducted to show that the proposed grant activities support the implementation of the 2023 Integrated STEM Standards.	No research or investigations have been conducted.	Some evidence is provided that applicants have conducted investigations into strategies to include the 2023 Integrated STEM Standards in proposed grant activities and demonstrate how the investigation/activities will support successful implementation.	Sufficient evidence is provided that applicants have conducted investigations into strategies to include the 2023 Integrated STEM Standards in proposed grant activities and demonstrate how the investigation/activities will support successful implementation.	Strong evidence is provided that applicants have conducted investigations into strategies to include the 2023 Integrated STEM Standards in proposed grant activities and demonstrate how the investigation/activities will support successful implementation.
1.3: Describe how the proposed plan to integrate STEM aligns to Indiana's Priorities for STEM Education and the goals of the 2023 Integrated STEM Standards.	No explanation is provided.	A general explanation is provided but includes few details of how the proposed plan aligns with Indiana's Priorities for STEM Education and/or the goals of the 2023 Integrated STEM	An explanation that the proposed plan aligns with Indiana's Priorities for STEM Education and the goals of the 2023 Integrated STEM Standards is provided.	A clear explanation supported by evidence that the proposed plan aligns with Indiana's Priorities for STEM Education and the goals of the 2023 Integrated STEM Standards is provided.

		Standards.		
1.4: Describe a detailed plan for STEM instructional approach training based on the selected grant strand.	Information to support the metric is not provided.	Based on the proposed plan, there is a detailed plan in place to refine STEM instructional approaches in the chosen grant strand of at least 50% of teachers serving students in the targeted schools/grade levels within the grant timeline.	Based on the proposed plan, there is a detailed plan in place to refine STEM instructional approaches in the chosen grant strand of at least 75% of teachers serving students in the targeted schools/grade levels within the grant timeline.	Based on the proposed plan, there is a detailed plan in place to refine STEM instructional approaches in the chosen grant strand of at least 95% of teachers serving students in the targeted schools/grade levels within the grant timeline.
1.5: Describe a detailed plan for providing ongoing instructional support for the implementation of proposed activities.	Information to support the metric is not provided.	There is a detailed plan in place for at least 50% of the grade level teachers working with identified student populations to receive continuous instructional support in the form of coaching, mentoring, peer feedback, etc. for the proposed grant activities within the grant timeline.	There is a detailed plan in place for at least 75% of the grade level teachers working with identified student populations to receive continuous instructional support in the form of coaching, mentoring, peer feedback, etc. for the proposed grant activities within the grant timeline.	There is a detailed plan in place for at least 95% of the grade level teachers working with identified student populations to receive continuous instructional support in the form of coaching, mentoring, peer feedback, etc. for the proposed grant activities within the grant timeline.
1.6: Describe a system and process for collecting the required data from teachers participating in the grant activities.	Description for collecting required data using the IDOE survey is general and unclear.			Description of the system or process includes tracking estimated numbers of students impacted and educators participating in grant activities, the number of participating schools, and a process for tracking that all participating teachers completed the survey.
Domain 2: Sustainability				

Criteria	Investigating (0 points)	Developing (1 point)	Approaching (2 points)	High Impact (3 Points)
2.1: Clearly describes an implementation plan for proposed activities within the grant cycle and sustainability in subsequent school years beyond the grant cycle.	The implementation timeline and sustainability plan are described in general with no specific details.	A timeline for implementation of proposed grant activities within the grant cycle and a one-year sustainability plan describing a system of ongoing instructional support for educators implementing the 2023 Integrated STEM Standards is included	A timeline for implementation of proposed grant activities within the grant cycle and a two-year sustainability plan describing a system of ongoing instructional support for educators implementing the 2023 Integrated STEM Standards is included	A timeline for implementation of proposed grant activities within the grant cycle and a three-year sustainability plan describing a system of ongoing instructional support for educators implementing the 2023 Integrated STEM Standards is included.
2.2: Provide evidence that required technology necessary to implement proposed grant activities is in place prior to implementation and will be updated to support sustainability after the grant cycle ends.	A general description is included but it is unclear if the necessary technology is present prior to implementation	Evidence is provided that some required technology necessary to implement proposed grant activities is in place prior to grant implementation and will be updated to support sustainability after the grant cycle ends.	Evidence is provided that most required technology necessary to implement proposed grant activities is in place prior to grant implementation and will be updated to support sustainability after the grant cycle ends.	Detailed evidence is provided that required technology necessary to implement proposed grant activities is in place prior to implementation and will be updated to support sustainability after the grant cycle ends.
2.3: Provide a detailed plan to actively engage STEM mentors and community partners in proposed grant activities.	No details are provided to connect the local community partners to specific activities or goals described in Domain 1.	There is a detailed plan to actively engage one or more local community partners and/or STEM mentors in grant activities.	There is a detailed plan to actively engage two or more local community partners and/or STEM mentors in grant activities.	There is a detailed plan to actively engage three or more local community partners and/or STEM mentors in grant activities.

Total Points Possible: 24

Budget Rubric

Criteria	Fail (0 points)	Pass (12 points)
Allowable expenditures	Budget includes one or more non-allowable expenditures.	All expenditures included in the budget are allowable.
Reasonable, allocable, and necessary to fulfill proposed grant activities	Budget is not reasonable, allocable, and/or necessary to fulfill proposed grant activities.	Budget is reasonable, allocable, and/or necessary to fulfill proposed grant activities.