

MEMORANDUM

To: Superintendents and Principals

From: Amanda McCammon, Chief of Workforce & STEM Alliances, DOE

Date: February 23, 2018

Re: IDOE STEM Acceleration Grant Opportunity

2018-2019 STEM K-6 Acceleration Grants
Deadline for Applications: March 23, 2018

**Instructions for Indiana School Districts and Charter Schools Seeking Funding to Support
STEM K-6 Curriculum Implementation and Educator Training**
Reference: 2017 Budget Bill, House Enrolled Act (HEA) 1001

Introduction/Background

The Indiana General Assembly appropriated funding in Fiscal Year 2018 to the Department of Education for STEM Program Alignment. These funds are to be used for research, surveys, and related staff support activities to develop recommendations to improve elementary and secondary student achievement and participation in science, technology, engineering, and math (STEM) subjects throughout Indiana and to improve coordination among the various STEM initiatives. Through this opportunity, the Indiana Department of Education (IDOE) will enhance the success of our students by accelerating exposure to and learning in the STEM (science, technology, engineering, and math) discipline for grades K-12. To support schools that have an interest in accelerating, scaling or starting STEM, school-based activities, the IDOE intends to provide STEM support activities during the 2018-2019 school year.

These grants will also be used for an important research effort to provide Indiana leaders with evidence of impact from STEM activities happening in classrooms across the state. In an effort to ensure a breadth of STEM practices for research purposes, a variety of awardees implementing various state and nationally recognized curriculum options will be selected as grant recipients.

An investment in integrated, standards based, inquiry-based, real world problem-solving STEM curriculum and professional development is critical in creating a learning environment of rigor, curiosity, and inquiry-based learning. The research base to support learner-centered instruction is identified in *How People Learn* (Donovan & Bransford, 2005), which outlines that a metacognitive approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them.

This research is reflected in the work of the Committee on Highly Successful Schools or Programs for K-12 STEM Education as part of the National Research Council that recognized the strong evidence base for STEM instruction and school-level practices. Research in STEM teaching and learning over the past two decades characterizes effective STEM education instruction that capitalizes on students' early interest and experiences, identifies and builds on what they know, and provides them with experiences to engage them in the practices of the disciplines to sustain their interest.

Example definitions used in exemplary STEM programs include:

Inquiry-based/real world/problem-solving state or nationally recognized curriculum:

- hands-on learning opportunities that focuses on critical thinking, problem-solving and real-world relevance;
- access to relevant, applied learning experiences that empower them to gain the skills they need to thrive in college, career, and beyond;
- is a process of inquiry-based activities that encourage students to contextualize the project with respect to existing knowledge and experience, and to communicate what they learned as a result.

Professional Development: Core Training immerses teachers in a hands-on, collaborative learning environment that challenges them to look at their classrooms in a new way. Teachers take on the role of a student, engage in in-depth exploration of PLTW coursework, and gain invaluable experience to take back to their classrooms.

Core Training helps teachers build skills and confidence around activity-, project-, and problem-based (APB) learning; prepares educators to become facilitators and coaches; and empowers them to bring learning to life through their PLTW program. Trainings are offered onsite or online across the U.S.

A list of example state and nationally recognized curriculum is provided in the application for your reference.

Program Description

In order to achieve intended outcomes, IDOE will put emphasis on the following while considering applications and scoring:

1. Fulfilling the IDOE's need to train STEM teachers and educators on best practices within STEM teaching and pedagogical models (such as inquiry-based and real world project-based learning);
2. Use of a variety of nationally or state recognized STEM curriculum across grantees;
3. Ability to participate in a collaborative research and data collection effort managed by IDOE and in collaboration with Indiana STEM leaders.

The program shall provide funding for programs impacting the 2018-19 school year. Funds are to be used for stipends, professional development/training, and the acquisition of instructional

materials necessary to implement selected STEM curriculum and professional development activities. Funds are NOT to be used for any other purpose outside of support for STEM Acceleration program and may NOT be used to fund employee salaries.

STEM Acceleration program costs funded by this grant may include but are not limited to:

- Instructional materials, including shipping and handling of materials for STEM curriculum;
- Support for instruction (professional development and training);
- Stipends for teacher training

School districts or charter schools may receive grant funding assistance for either:

- the establishment of a *new* STEM program or curriculum in a school to use for grades K-6;
- the scaling of existing successful state of nationally recognized STEM programs or curriculum in a school to use for grades K-6; and
- corresponding professional development.

Amount of Grant Program Support

Based on grant committee review, STEM Acceleration Program grants will be awarded to public school districts or charter schools at an amount up to \$100,000 for the 2018-2019 school year. Awardee funding allocations will be based upon the following scale:

# of Students Served with Award	Maximum Allocation
< 50	\$25,000
< 250	\$50,000
< 500	\$75,000
> 500	\$100,000

Participating school districts or charters school STEM Acceleration Program grant awardees for 2018-19 will need to re-apply in order to be considered for additional grant funding for the 2019 – 2020 school year.

Priorities for Funding

Based on committee review, priority in awarding grant funding shall be given to grant applicants:

- Serving K-6 grade students;
- With adequate technological resources and supports already in place;
- That provides equitable access to high quality STEM education for all students in the applicable cohort; and
- That provides a robust sustainability plan that includes scaling the impact of high quality access to STEM education for all students in their district.

Program Requirements

Proposals must meet the following criteria:

1. Strong school leadership, district and community support;
2. Positive consensus around STEM and instructional models from staff and stakeholders;
3. Viable enrollment numbers;
4. Adequate available resources to support staffing needs and professional development;
5. Sustainability plan created to continue after this initial round of funding.

Proposal Submission and Review

Applicants must submit a signed copy of the full proposal to the IDOE.

The copy must include signatures of the authorized officials.

To be considered for funding, completed online proposals must be submitted to the IDOE no later than **1:00 p.m. on March 23, 2018.**

Proposals must be submitted online at <https://form.jotform.com/80493709929976>.

Paper copies of grant applications will not be accepted.

Review Process

- All applications will be evaluated using an internal and external expert review panel. The expert team of reviewers will be selected from IDOE staff and external experts as needed. Their backgrounds and expertise in training, identification, curriculum, instruction, research, and teacher preparation in STEM programming will directly relate to the priorities of the STEM Acceleration Program process. The award selections will be based on merit and quality, as determined by points awarded for the criteria section and all relevant information. **This is a competitive grant program and grant funds will only be awarded to schools with proposals that show promise for successful, effective and sustainable implementation consistent with the goals of the STEM Acceleration Program.** DOE will determine selection based on highest scores and a variety of STEM models/curriculum for research purposes.

Section	Required Elements	Maximum Length	Points Possible	Criteria
I	Applicant Information	NA	0 pts.	<ul style="list-style-type: none"> • None or few points: Lacks detail, clarity and/or specificity, or does not align with Best Practice in STEM or provides evidence of grant focus.
II	Students to be Served by the Grant	NA	5 pts.	
III	Current Status of your STEM Initiative	150 Words	20 pts.	<ul style="list-style-type: none"> • Partial number of points: Gives detail, clarity and/or specificity;

IV	Evidence of Effectiveness of your Selected STEM Model	150 Words	20 pts.	<p>aligns somewhat with Best Practice in STEM and grant focus, but does not give strong evidence.</p> <ul style="list-style-type: none"> • Most or all of points: Gives detail, clarity and/or specificity with strong evidence; clearly aligns with Best Practice in STEM and grant focus.
V	Plan to Accelerate Your STEM Initiative	200 Words	20 pts.	
VI	SMART Goals	100 Words	15 pts.	
VII	Budget Narrative	150 Words	10 pts.	
VIII	Sustainability Plan	100 Words	5 pts.	
IX	District Commitments, Assurances & Signatures	NA	5pts.	
Total Points Possible			100 pts.	

Award Administration

NOTIFICATION AND AWARD CONDITIONS: Within 10 days of completion of the review process, the superintendent and/or principal will be notified of the status of the proposal.

REPORTING REQUIREMENTS: Each eligible school district or charter school receiving a grant will be required to report minimally semi-annually to the IDOE regarding progress in meeting the objectives and annual targets described in the proposal. Grant recipients must participate in an outside evaluation of their programming. Surveys conducted will require the participation of all participants of the funded program, including teachers and administrators. Further information regarding reporting requirements and forms will be made available by the IDOE. School districts or charter schools will be notified of required training and site visits, both on site or desktop monitoring.

For questions regarding the Accelerate STEM grant application process, please contact Kris Campbell, IDOE Support Specialist, kcampbell@doe.in.gov.