

INDIANA DEPARTMENT OF EDUCATION OFFICE OF TEACHING AND LEARNING

Computer Science Catalyst Grant



INDIANA
DEPARTMENT *of*
EDUCATION

Table of Contents

Table of Contents	2
Grant Overview	3
Grant Summary	3
Grant Eligibility	5
Application Overview	5
Application Components	7
Grant Narrative	8
Budget Narrative & Summary	8
Evaluation Rubrics	10
Computer Science Catalyst Grant Narrative Scoring Rubric	10
Budget Rubric	12
State Contracting	13
Submission	13

Grant Overview

Computer Science Catalyst Grant	
Grant Period	Saturday, July 1, 2023 through Sunday, June 30, 2024
Application Release Date	Friday, May 12, 2023
Application Due Date	Friday, June 2, 2023
Submission Process	<i>Computer Science Catalyst Grant Online Application</i>
Eligibility	<p>Applicants must be a state accredited school proposing the implementation of activities to:</p> <ol style="list-style-type: none"> 1. Provide teachers with high quality teacher professional development programs in computer science; and 2. Develop and implement sustainable computer science curricular programs.
Award	Grant awards in amounts up to \$20,000 will be awarded based on the applicant's proposed project and budget.
Grant Award Notification	A status update will be provided by Friday, June 9.

Grant Summary

The *Computer Science Catalyst Grant* is established to support state-accredited schools serving PK-12 students to initiate or expand computer science learning opportunities in accordance with IC-30-25-23, which states:

After June 30, 2021, each public high school, including each charter school, shall offer at least one (1) computer science course as a one (1) semester elective in the public high school's curriculum at least once each school year for high school students. After June 30, 2021, each public school, including each charter school, shall include computer science in the public school's curriculum for students in kindergarten through grade 12.

Funded through appropriations by the Indiana General Assembly in the Next Level Computer Science Fund, this grant aims to spark innovation in computer science education by producing the following **key results**:

- Accelerate computer science pedagogical knowledge of educators involved in proposed grant activities to expand course sequences and/or implement integrated computer science learning opportunities;

- Increase the number of PK-12 students who have access to high-quality computer science learning experiences;
- Promote teacher understanding of and ability to implement authentic problem solving using computing to address or improve systems and circumstances within the school or local community; and
- Expand and maintain systems to sustain development of teacher capacity to teach computer science, recruitment of student groups typically underrepresented in computer science, and connections to industry and community experts who can inform future expansion of computer science opportunities beyond the grant cycle.

The *Computer Science Catalyst Grant* provides funding to transform current courses, course sequences, and integrated computer science learning opportunities to align with the needs of an increasingly technological world. According to the Indiana Department of Workforce Development (DWD) (Indiana DWD, 2021), “The number of jobs in the computer science and mathematical sector in Indiana are expected to grow to nearly 69,000 by 2028, an increase of approximately 7,000 from its 2018 base of 61,344 jobs.” It is imperative for our education system to support efforts to prepare Indiana students for success in high-demand computer science post-secondary experiences by developing PK-12 teachers with skills to engage students in solving authentic community problems using computing.

Grant Eligibility

To achieve these key results and outcomes outlined in the *Computer Science Catalyst Grant*, PK-12 schools need targeted support. Pursuant to [Indiana Code \(IC\) 20-20-45-1](#), applicants must be a state accredited school proposing the implementation of activities to:

1. Provide teachers with high quality teacher professional development programs in computer science; and
2. Develop and implement sustainable computer science curricular programs.

In addition to the above requirements, funds will be awarded based on the specific details provided to support the following:

- Applicants must demonstrate a commitment to expanding computer science learning opportunities for students;
- Applicants must have a plan to initiate or expand computer science learning opportunities through teacher professional development, implementing selected computer science curriculum, or both; and
- Applicants must have a clear and actionable plan for utilizing the grant funds to achieve **key results** of the *Computer Science Catalyst Grant*.

Application Overview

Pursuant to [IC-20-20-45](#), the *Computer Science Catalyst Grant* funds may be used to support one or more of the following grant activities:

- Plan and implement PK-12 computer science professional development opportunities specifically designed to prepare educators to integrate computer science/computational thinking within multiple disciplines in an effort to solve real-world problems in communities around the state.
- Develop and implement a system to match educators with regional partners to identify real-world problems that can be solved using computers.
- Plan and implement professional development opportunities for grades PK-8 addressing multi-disciplinary approaches to integrating computer science core concepts and practices into real-world solutions.
- Create and implement a system to highlight and promote multidisciplinary problem solving resulting in solutions to real-world problems identified in local communities using a “train the trainer” model where classroom teachers demonstrate strategies for successful implementation.
- Connect secondary computer science teachers with industry experts who can mentor and support the expansion of secondary computer science course sequences.
- Identify opportunities to strengthen connections between existing components of a district-wide computer science pathway and implement strategies to increase consistent exposure to computer science learning opportunities as students move from preschool through grade 12.
- Explore and implement innovative approaches to computer science education.
- Develop extracurricular programs that support computer science education.
- Host events that connect parents, career coaches, counselors, and students to community partners and industry experts to promote computer science educational opportunities.

The grant will provide funding for programs impacting the 2023-2024 school year and beyond. Funds may be used for teacher stipends, professional development/training, and the acquisition of instructional materials necessary to implement proposed grant activities. Funds are not to be used for any other purpose outside of support for the *Computer Science Catalyst Grant* program.

The grant narrative and budget documentation must:

- Affirm the connection between proposed grant activities and the need to spark innovation and expansion of current computer science offerings;
- Affirm the intended use of grant funds;
- Affirm systems and processes are in place to monitor program implementation and sustain proposed grant activities beyond the grant cycle; and
- Affirm participation of regional stakeholders (e.g., community partners, industry experts, professional development providers) in proposed grant activities.

In addition to the above requirements, applicants must clearly articulate a *Computer Science Catalyst Grant Plan* through the grant narrative and budget documentation that satisfies the evaluation criteria in the domains outlined below.

Domain 1: Computer Science Pedagogy Development

Successful grant applications will:

1.1: Identify the grant activities the applicant seeks to implement and explain the selection criteria used to determine how proposed activities (e.g. implement new curriculum, expand teacher professional development, add physical computing) will achieve key results of the grant;

1.2: Develop an implementation timeline along with a sustainability plan that will support this work after the grant cycle has ended; and

1.3: Identify support personnel within the school who will be responsible for implementing proposed grant activities and define the roles they will play in implementation and sustainability.

Domain 2: Collaboration with Regional Stakeholders

Successful grant applications will:

2.1: Identify regional stakeholders (e.g. community partners, industry experts, professional development providers) who will assist in implementing proposed grant activity development and implementation;

2.2: Provide selection criteria or qualifications for selected regional stakeholders (e.g. community partners, industry experts, professional development providers) and explain role(s) and responsibilities in proposed grant activities; and

2.3: Provide letters of support from regional stakeholders for engaging in a defined role in implementing proposed grant activities (including primary contact information).

Application Components

Applications include a grant narrative, budget summary (Excel format), and a budget narrative, and 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.

Section	Points Possible
Grant Narrative	
a. Computer Science Pedagogy Development	9
b. Collaboration with Regional Stakeholders	9
Budget Narrative (Pass or Fail)	12
Budget Summary (Pass or Fail)	12
Total	42

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

Grant Narrative

Domain 1: Computer Science Pedagogy Development

- Identify the grant activities the applicant seeks to implement and explain the selection criteria used to determine how proposed activities (e.g. implement new curriculum, expand teacher professional development, add physical computing) will achieve key results of the grant:
 - Accelerate computer science pedagogical knowledge of educators involved in proposed grant activities to expand course sequences and/or implement integrated computer science learning opportunities;
 - Increase the number of PK-12 students who have access to high-quality computer science learning experiences; and
 - Promote teacher understanding of and ability to implement authentic problem solving using computing to address or improve systems and circumstances within the school or local community.
- Develop and describe the timeline for implementing proposed grant activities to achieve key results;
- Determine and explain the action items you will complete during the grant period to ensure sustainability of proposed grant activities beyond the grant cycle; and
- Describe the personnel (eg. teachers, instructional coach, STEM coach) within your school or district who will be responsible for implementing proposed grant activities and define the roles they will play in implementation and sustainability.

Domain 2: Collaboration with Regional Stakeholders

- Describe the regional stakeholders (e.g., community partners, industry experts, professional development providers) who have committed to assist in implementing proposed grant activity development and implementation.
- Provide selection criteria or qualifications for selected regional stakeholders (e.g., community partners, industry experts, professional development providers) and explain role(s) and responsibilities in proposed grant activities.
- Provide letters of support, including primary contact information, from regional stakeholders (e.g., community partners, industry experts, professional development providers) for engaging in a defined role in implementing proposed grant activities.

Budget Narrative & Summary

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. Requested expenditures of 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.

Reimbursement

The *Computer Science Catalyst 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;
- Grant recipients will submit for reimbursement based on the timeline included in the grant narrative; and
- Reimbursement forms and directions will be provided after the grant contracts have been fully executed.

Allowable Reimbursements

In preparation for this grant opportunity, applicants should identify the proposed grant activities they seek to prioritize and determine the regional partner(s) that best meets those needs. After developing a strategy, estimated budget, timeline, and sustainability plan, the state accredited school can apply for the following reimbursable expenses:

- Professional Development/Training
- Travel
- Supplies/curriculum materials
- Contracted services
- Teacher stipends
- Software and technology
- Virtual programming

Expenses Not Allowed for Reimbursements

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

- Non-academic entertainment
- Preparation of the initial grant application prior to July 1, 2023
- 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, paying utilities, and employee benefits associated with stipends).

Evaluation Rubrics

Computer Science Catalyst Grant Narrative Scoring Rubric

Domain 1: Computer Science Pedagogy Development				
Criteria	Investigating (0 points)	Developing (1 point)	Approaching (2 points)	High Impact (3 Points)
1.1: Identify the grant activities the applicant seeks to implement and explain how the selection criteria used to determine how proposed activities (e.g. implement new curriculum, expand teacher professional development, add physical computing) will achieve key results (see above) of the grant.	Proposed grant activities are not tied to key results of the grant and inadequate details are provided to support the plan narrative.	Either proposed grant activities or key results are referenced, but not both.	Most proposed grant activities are connected to key results and are explained with significant, well-developed details.	All proposed grant activities are connected to key results and are explained with significant, well-developed details.
1.2: Develop an implementation timeline along with a sustainability plan that will support this work after the grant cycle has ended.	No strategy, timeline, or sustainability plan of action is included.	A strategy and timeline are included, but there is no clear sustainability plan for after the grant period.	A clear strategy and timeline that align with grant requirements are included with a sustainability plan for after the grant period.	A comprehensive strategy is outlined with an implementation timeline that aligns with the grant spending deadline and showcases how work will be sustained after the grant period.
1.3: Identify support personnel within the school who will be responsible for implementing proposed grant activities and define the roles they	No information regarding support personnel is provided.	Support personnel for implementation of some of the proposed grant activities are included.	Support personnel for implementation and sustainability of all proposed grant activities are included, and roles	Support personnel for implementation and sustainability of all proposed grant activities are included, and a comprehensive

will play in implementation and sustainability.			are defined with some detail.	description of roles and responsibilities for implementation and sustainability are identified.
Domain 2: Collaboration with Regional Stakeholders				
Criteria	Investigating (0 points)	Developing (1 point)	Approaching (2 points)	High Impact (3 Points)
2.1: Identify regional stakeholders (e.g., community partners, industry experts, professional development providers) who will assist in implementing proposed grant activity development and implementation.	No regional stakeholders are identified.	At least one regional stakeholder is included, but their role is not specified in the proposed grant development or implementation.	At least one regional stakeholder is included and their role is clearly outlined in the proposed grant development and implementation.	Multiple regional stakeholders are included and their role is clearly outlined in the proposed grant development and implementation.
2.2: Provide selection criteria or qualifications for selected regional stakeholders (e.g., community partners, industry experts, professional development providers) and explain role(s) and responsibilities in proposed grant activities.	No selection criteria or qualifications of regional stakeholders is included.	Selection criteria and qualifications for selected regional stakeholders is included without an explanation of roles and responsibilities.	Selection criteria and qualifications for selected regional stakeholders is included with an explanation of roles and responsibilities in proposed grant activities.	Selection criteria and qualifications for selected regional stakeholders is included with an explanation of roles and responsibilities in proposed grant activities indicating a comprehensive plan for sustaining regional support of PK-12 computer science educators beyond the grant period.
2.3: Provide letters of support from regional stakeholders (e.g. community partners, industry experts, professional development providers) for engaging in a defined	No letters of support from regional stakeholders are included.	Letters of support from regional stakeholders are included with minimal detail or commitment to a defined role in	Letters of support from regional stakeholders are included with details of commitment to engaging in a defined role in implementing proposed	Letters of support from regional stakeholders are included with details of commitment to engaging in a defined role in implementing proposed grant activities and

role in implementing proposed grant activities (including primary contact information).		implementing proposed grant activities.	grant activities.	includes concrete plans for sustaining regional support of PK-12 computer science educators beyond the grant period.
Total Points Possible: 18				

Budget Rubric

Criteria	Fail (0 points)	Pass (12 points)
Allowable expenditures	Budget includes one or more unallowable 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.

State Contracting

The state of Indiana requires accredited schools to be registered with the state through three separate agencies: Secretary of State's Office, Indiana Department of Administration, and Auditor of State's Office. It is the responsibility of the applicant to confirm that all current school information is on file prior to submitting the grant application.

Secretary of State's Office

Review Indiana's Secretary of State [website](#) or call 317-232-6581 to determine if your registration is required. Verify if your organization's registration is active [here](#). Please note that individuals are not required to register with the Secretary of State's Office.

Auditor of State's Office

Complete the [W-9](#) and [direct deposit](#) forms and submit to accounts payable with the Auditor of State's Office at accountspayable@doe.in.gov if you are not already registered as a vendor in Indiana. Direct deposit by electronic funds transfer is required by [IC 4-13-2-14.8](#) unless a waiver is obtained from the Auditor of State's Office.

Indiana Department of Administration

The Indiana Department of Administration has launched the Supplier Contract Management System (SCM) for the processing of state contract and grant agreements. On November 1, 2016, IDOE began utilizing SCM for 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 [Computer Science Catalyst Grant Application](#) are due by 11:59 p.m. ET on Friday, June 2. A status update on the review and award process will be provided on Friday, June 9. Contact IDOE's [Office of Teaching and Learning](#) with any questions regarding this grant.

References

- Indiana DWD. (2021). Indiana Employment Outlook Projections, <https://www.hoosierdata.in.gov/FD/landing.aspx>