



# School Certification Guide

2019-2020

## **STEM Leadership Cadre**

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## **Additional Contributors**

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## **IDOE Staff Support**

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## Indiana STEM School Summary

**Vision:** All Indiana students in grades K-12 will graduate with critical thinking skills and be prepared for an innovation-driven economy by accessing quality, world-class science, technology, engineering, and mathematics (STEM) education every day in the classroom by 2025.

**Mission:** Ensure Indiana teachers are prepared to provide every student in grades K-12 with an evidence-based, effective STEM education by 2025.

**STEM Education Defined:** STEM education is the integration of science, technology, engineering, and math disciplines with the goal of deploying problem-based and inquiry-based approaches to teaching and learning in the classroom, while developing critical thinking skills and creating pathways to postsecondary readiness and career opportunities.

**STEM Classroom Defined:** STEM classroom is a non-traditional classroom that shifts students away from learning discrete bits and pieces of phenomena and rote procedures, and works toward investigating and questioning the interrelated facets of the real world. STEM education aims to develop a student's ability to think logically, solve problems, innovate in both academic and real-world contexts, engage in inquiry, collaborate with peers, and self-motivate. When explicit instruction does not make connections across STEM disciplines, isolated courses and coursework may prevent our students from building necessary competencies and connections among the four STEM disciplines. STEM education intentionally makes the connections across subjects where appropriate. It requires a pedagogical shift in instruction that connects education to students' own interests and experiences. STEM education is also meant to be equitable, providing all students' opportunities to learn, develop, and acquire skills that will provide success in life.

Evolving into a STEM school environment is much more than introducing a program. For schools, this requires establishing a common local agenda to significantly improve student performance, incorporating STEM education at all levels, engaging local business and the community, and adopting new curriculum and instructional practices. A school's success depends on prioritizing STEM and putting in place effective models that best meet student needs. The Indiana Department of Education (IDOE) identifies three main levels of STEM school immersion and the components that are necessary to become a STEM model school in the STEM School Evaluation Rubric. The rubric serves as a guide for identifying and creating a STEM environment that ranges from developing to approaching to innovating. Prior to applying, be sure to refer to the STEM School Evaluation Rubric to determine eligibility.

Members of IDOE's Department of Workforce and Innovation have been working with the State's STEM Leadership Cadre to update the STEM School Evaluation Rubric. This work has been undertaken in order to more closely align the STEM Certification process with the Indiana STEM Six-Year Strategic Plan and to make the process more rigorous and objective.

The IDOE has recognized and supported the critical contributions made by our STEM programs and schools throughout the state for many years. It is for this reason that in 2015, Indiana

began the effort to identify and certify those exemplary schools, by offering an opportunity for schools to apply for recognition as a STEM Certified School.

Eligible entities include Indiana K-12 schools and career and technical education centers. The STEM certification application process requires the creation of a Google Site (or an approved alternative), using the provided template, to document evidence of a school's STEM implementation and concludes with a site visit by an IDOE STEM Certification Review Team.

### **Certification Timeline**

- **Application and materials released** - July 26, 2019
- **Application due** - November 15, 2019
- **Application reviewed by IDOE and STEM Cadre** - December 13, 2019
- **Feedback provided to schools** - December 20, 2019
- **Schools provide additional evidence** - January 10, 2020
- **Site visits scheduled** - January 31, 2020
- **Site visits completed** - March 27, 2020
- **Official Announcement of STEM Certified Schools** - May 8, 2020

### **Application Process**

**DUE DATE: November 15, 2019**

**Step 1:** School Leadership Team members conduct a self-evaluation using the [STEM School Evaluation Rubric](#). Please note that as you move to the right on the rubric for each element, from Developing to Approaching and from Approaching to Innovating, it is understood that the criteria in the category to the left have been met.

**Step 2:** If able to document a minimum of 60 points, with a required score of three on all nine Essential Elements, on the STEM Evaluation Rubric, School Leadership Team members use the Google Sites Template (or approved alternative) to showcase evidence of elements in the STEM School Evaluation Rubric. Complete [this form](#) to obtain the Google Sites Template. (Please note that if you are approved to use an alternative to Google Sites you will still need to follow the format prescribed in the Google Sites Template).

**Step 3:** School Leadership Team shares the Google Site (or approved alternative) with Dr. Christy Hilton, STEM Specialist, using [chilton@doe.in.gov](mailto:chilton@doe.in.gov) by November 15, 2019.

**Step 4:** An IDOE STEM School Certification Review Team comprised of two IDOE staff members and two STEM Cadre members will review the Google Site (or approved alternative) using the STEM School Evaluation Rubric.

**Step 5:** Submissions scored at a minimum of 60 points, with a required score of three on all nine Essential Elements, by IDOE's STEM School Certification Review Team, will be contacted to schedule a site visit. Submissions scored at 59 points or below will receive feedback on the submission from IDOE's STEM School Certification Team and will not receive a site visit.

**Step 6:** As a part of the site visit, an IDOE STEM School Certification Team will revisit your Google Site (or approved alternative) and compare it with the additional evidence and supporting documentation obtained that day. One or more community/business partner(s), designated by IDOE, may participate in the site visit. A preliminary score (and embargoed certification status) will be shared with the School Leadership Team at the conclusion of the site visit.

**Step 7:** IDOE STEM School Certification Review Team will provide a final report within one week of the site visit. Applications receiving an official score of 67 or below and/or who do not earn a score of three on all Nine Essential Elements, see Step 8. Applications receiving a minimum score of 68 and who earn a score of three on all Nine Essential Elements, see Step 9.

**Step 8:** Applications receiving an official score of 67 or below after a site visit may appeal the score by updating the Google Site with additional supporting evidence. A follow-up site visit will be scheduled for the following August or September to confirm the updated submissions. If the updated submissions and site visit indicate a score of 68 or more, the school will then receive designation as a STEM Certified School.

**Step 9:** Applications receiving a minimum score of 68 points, with a required score of three on all Nine Essential Elements, will be designated as a STEM Certified School by the IDOE STEM School Certification Review team. The designation will be embargoed until the official announcement is made via press release for the 2019-2020 school year by the Superintendent of Public Instruction. An official STEM School Certification banner will be mailed to each successful school.

## **Recertification**

All STEM Certified Schools will be required to reapply for certification every five years in order to maintain certification. Evidence of growth in the STEM attributes will be required. Recertification instructions will be sent directly to eligible schools.

### **Required Components of Application**

- STEM Plan Executive Summary (Maximum of 1,500 Words)
- STEM Plan Vision Statement
- STEM Plan Mission Statement
- STEM School Leadership Team Biographies
- STEM School Leadership Team Chair Contact Information
- Principal Information
- Superintendent Information
- Domain 1: Culture
  - a. Summary (Maximum of 500 Words)
  - b. Self-Score on each element with uploaded documentation
- Domain 2: Curriculum
  - a. Summary (Maximum of 500 Words)
  - b. Self-Score on each element with uploaded documentation
- Domain 3: Instruction
  - a. Summary (Maximum of 500 Words)
  - b. Self-Score on each element with uploaded documentation
- Domain 4: Partnerships
  - a. Summary (Maximum of 500 Words)
  - b. Self-Score on each element with uploaded documentation
- Letter of Support from Principal
- Letter of Support from Superintendent
- Letter of Support from Community Partner