



**Indiana Department of Education  
STEM Certification Guide  
2021-2022**

## **STEM Leadership Cadre**

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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:** The 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 students from building necessary competencies and connections among the four STEM disciplines. STEM education intentionally makes 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.

IDOE recognizes and supports the critical contributions made by its 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.

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 businesses and the community, and adopting new curriculum and instructional practices. A school's success depends on prioritizing STEM and putting effective models that best meet student needs in place. IDOE identifies three main levels of STEM school immersion and the components that are necessary to become a STEM model school in the STEM Certification 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, refer to the STEM Certification Evaluation

Rubric to determine eligibility.

Members of IDOE's Department of Workforce & Innovation collaborated with the State's STEM Leadership Cadre to update the STEM Certification Evaluation Rubric for the 2019-2020 school year. This work was undertaken in order to more closely align the STEM Certification process to the Indiana STEM Six-Year Strategic Plan and to make the process more rigorous and objective. Based upon review of the implementation of the 2019-2020 rubric, members of IDOE's Teaching & Learning team collaborated with the State's STEM Leader Cadre to revise and refine the rubric for the 2020-2021 school year.

Eligible entities for STEM Certification include Indiana K-12 schools (both public and private), high school STEM programs, 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. This process is used for new schools and high school STEM programs to become STEM-Certified, as well as for those that need to renew. The list of STEM-Certified Schools and STEM-Certified Programs, by cohort, can be found [here](#). Certification is valid for five years. Schools and programs with the goal to retain STEM Certification must reapply following the timeline and process as described below.

## **Certification/Recertification Timeline**

- **Application and materials released** - May 28, 2021
- **Application due** - October 29, 2021
- **Application reviewed by IDOE and STEM Cadre** - November 23, 2021
- **Feedback provided to schools** - December 10, 2021
- **Schools provide additional evidence** - January 14, 2022
- **Feedback provided to schools** - February 4, 2022
- **\*Site visits scheduled and completed** - April 15, 2022
- **Official Announcement of STEM Certified Schools** - May 6, 2022

*\*Not required for Recertification*

## **Application Process**

**DUE DATE: October 29, 2021**

**Step 1:** School Leadership Team members conduct a self-evaluation using the 2021-2022 STEM Certification Evaluation Rubric. See "Key Terms" at the bottom of the rubric and/or the "References" tab of the rubric for clarification on the Elements.

**Step 2:** Schedule a meeting with the STEM Specialist to discuss self-evaluation, Google Sites evidence guidance, and application process.

**Step 3:** If able to document a minimum of 57 points with a required score of three on all nine Essential Elements on the STEM Certification Evaluation Rubric, the School Leadership Team members use the Google Sites Template (or approved alternative) to showcase evidence of elements in the STEM Certification Evaluation Rubric. Complete this [form](#) to obtain the Google Sites Template. (Please note that schools approved to use an alternative to Google Sites, because the corporation has a policy prohibiting the use of Google tools will still need to follow the format prescribed in the Google Sites template. Schools must provide documentation of the Google policy).

**Step 4:** Someone from outside of the school building uses the STEM Certification Evaluation Rubric to evaluate your site. Someone from outside of the domain should check all links to ensure all evidence is accessible to anyone with the link.

**Step 5:** School Leadership Team submits the Google Site (or approved alternative) using this [form](#) by October 29, 2021.

**Step 6:** IDOE's STEM Certification Review Team, comprised of two IDOE staff members and two STEM Cadre members, will review the Google Site (or approved alternative) using the 2021-2022 STEM School Evaluation Rubric.

**Step 7:** All applications will receive specific feedback in a preliminary score report. After receiving a preliminary report, all schools will have the opportunity to submit additional evidence by January 14, 2022. Applications scoring a minimum of 57 points and attaining a required score of three on all nine Essential Elements after rescoring will be contacted to schedule a site visit. Submissions scoring fewer than 57 points will receive feedback on the final score report and will not receive a site visit. Recertification schools see Step 10. All applications will receive specific feedback in a preliminary score report. After receiving a preliminary report, all schools will have the opportunity to submit additional evidence by January 14, 2022. Applications scoring a minimum of 57 points and attaining a required score of three on all nine Essential Elements after rescoring will be contacted to schedule a site visit. Submissions scoring fewer than 57 points will receive feedback on the final score report and will not receive a site visit. Recertification schools see Step 11.

**Step 8:** As a part of the site visit, IDOE's STEM Certification Team will revisit the school's Google Site (or approved alternative) and compare it with the additional evidence and supporting documentation obtained that day. A preliminary score (and embargoed certification status) will be shared with the School Leadership Team at the conclusion of the site visit. Should virtual site visits be necessary, the School Leadership Team will share video tours and student/staff interviews with IDOE's STEM Certification Team. Embargoed certification status will be provided within one week of the virtual visit.

**Step 9:** IDOE's STEM Certification Review Team will provide a final report within one

week of the site visit. Applications that receive an official score of 64 or below and/or do not earn a score of three on all Nine Essential Elements, see Step 10. Applications receiving a minimum score of 65 and who earn a score of three on all Nine Essential Elements, see Step 11.

**Step 10:** Applications receiving an official score of less than 64 with a required score of three on all Essential Elements after a site visit may appeal the score by updating the Google Site with additional supporting evidence.

**Step 11:** Applications receiving a minimum score of 65 points, with a required score of three on all Nine Essential Elements, will be designated as a STEM-Certified School or STEM-Certified Program by IDOE's STEM School Certification Review team. The designation will be embargoed until the official announcement is made via press release for the 2021-2022 school year.

### **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
  - Domain summary (Maximum of 500 Words)
  - Short summary and description of each piece of evidence
  - Corresponding, uploaded documentation
- Domain 2: Curriculum
  - Domain summary (Maximum of 500 Words)
  - Short summary and description of each piece of evidence
  - Corresponding, uploaded documentation
- Domain 3: Instruction
  - Domain summary (Maximum of 500 Words)
  - Short summary and description of each piece of evidence
  - Corresponding, uploaded documentation

- Domain 4: Partnerships
  - Domain summary (Maximum of 500 Words)
  - Short summary and description of each piece of evidence
  - Corresponding, uploaded documentation
  
- Letter of Support from Principal
  
- Letter of Support from Superintendent
  
- Letter of Support from Community Partner

**Questions:** Please see IDOE's [STEM page](#) for contact information.