**Purpose of the 2024-2025 High-Quality Curricular Materials Rubric**

To help more students gain foundational literacy skills, the Indiana Department of Education will annually publish a list of high-quality curricular materials for K-12 STEM (Science, Technology, Engineering, Mathematics). This list is designed to help schools as they select local curriculum. All core curricula included on this list will be pre-vetted to ensure alignment with Indiana Academic Standards, and select high school courses from Indiana’s Next Level Programs of Study, College Board, Cambridge International School, and the International Baccalaureate Organization, in addition to any applicable state laws and community standards. The review process will also consider age appropriateness of materials.

To be added to this list, below is an overview of the process that vendors will follow to submit their curricular materials for review and consideration.

1. Vendor obtains an independent review by a credible **third-party research** entity.
   1. Curricular materials must satisfy all required criteria in Sections I, II, III, and IV below to be deemed high-quality.
      1. If there is a “Yes” for all required criteria, materials receive an overall “Yes” for that section.
      2. If there is a “No” for any of the required criteria, materials receive an overall “No” for that section.
2. Vendor submits curricular materials, including evidence of their completed independent review, to IDOE for further review and consideration.
3. IDOE reviews the information submitted by the vendor and completes a subsequent review of the vendor-submitted materials, alongside committee members.
   1. Details about each vendor’s rating completed by the independent **third-party research** entity must be submitted with the corresponding documentation for review in addition to evidence supporting other required criteria.
   2. Anecdotes or research beyond what the curricular organization explicitly provides will not inform ratings.
4. IDOE provides an initial determination (i.e., approved or not approved).
5. Vendors have an opportunity to provide additional evidence in support of any criterion that yields a “No” response before a final determination is made.
6. Selection of core materials are local decisions and should be vetted at the local level to assure consistency with the advisory list and alignment with community standards.

Submissions are evaluated on the extent to which they meet all criteria noted below. The term “materials” is used throughout the evaluation tool to refer to instructional materials used by the educator or provided to students, unless otherwise noted.

**Important and bolded words throughout the rubric are defined in Appendices A and B.** Review IDOE’s [High-Quality Curricular Materials Advisory Lists webpage](https://www.in.gov/doe/students/high-quality-curricular-materials-advisory-lists/) for additional information.

**Section I: K-12 Required Criteria for Alignment with State and Federal Law**

Evidence must meet all criteria noted in Section I.

| **Criteria** | **Determination: Yes/No** | **Notes/Evidence** |
| --- | --- | --- |
| Curricular materials can be reproduced in large type, Braille, and audio format in accordance with Sections 612(a)(23)(A) and 674(e)(4) of the Individuals with Disabilities Education Improvement Act 2004 (20 U.S.C. 1400 et seq.). | Select Ranking |  |
| Prekindergarten through Grade 3:  The content of the material does not provide any instruction to a student in prekindergarten through grade three on human sexuality (IC 20-30-17-2). | Select Ranking |  |
| The content of the material does not contain **obscene matter or matter harmful to minors** (IC 35-49-2-1). | Select Ranking |  |
| The content of the material does not contain **matter or performance harmful to minors (**IC 35-49-2-2). | Select Ranking |  |
| The content of the material is age-appropriate. | Select Ranking |  |

**Section II: K-12 Required Criteria for Instruction**

Evidence must meet all criteria noted in Section II for the selected grade levels or course.

| **Subject(s)** | **Criteria** | **Determination:**  **Yes/No** | **Notes/Evidence** |
| --- | --- | --- | --- |
| **Science**  **Computer Science**  **Engineering**  **Mathematics** | Curriculum achieved at least one of the following for the applicable grade band or course under review   1. Rating of “Meets Expectations” in Gateways 1, 2, and 3 from [EdReports](https://edreports.org/). 2. Endorsement by College Board for Advanced Placement courses only. 3. Comparable rating from another credible, **third-party research entity**. | Select Ranking |  |
| The curriculum **aligns with the focus, coherence, depth, and rigor of at least 85% of the 2023 Indiana Academic Standards (IAS), Next Level Programs of Study (NLPS) competencies, or AP learning objectives for the content area/grade level/course** being reviewed with minimal or no need for instructional adaptations and/or supplemental materials. Science submissions include all three dimensions outlined in the Next Generation Science Standards (NGSS) that inform the performance expectation (i.e., disciplinary core ideas, science and engineering practices, and crosscutting concepts). Submissions for K-8 engineering align with 100% of all grade level Engineering, Technology and Applications of Science (ETS) Design standards. Refer to specific standard counts [here](https://docs.google.com/spreadsheets/d/18EMbGs5UtAGPvyVrXqa2ZjLmmoA8Acbkuje7zWYGD-8/copy). | Select Ranking |  |
| **Computer Science** | At least 85% of lessons provide opportunities for students to engage in authentic computer science learning experiences in alignment with the core computer science practices. | Select Ranking |  |
| At least 85% of lessons provide scaffolding or fading of support over time to promote student proficiency and independence with targeted computer science skills. | Select Ranking |  |
| At least 85% of lessons provide **multiple representations by adapting for a variety of different types of learners** using alternatives to reading, writing, listening, and speaking such as translations, pictures, or graphic organizers. | Select Ranking |  |
| At least 85% of lessons provide teachers with common misconceptions and challenges that students have regarding computer science concepts and potential explanations or solutions associated with computer science. | Select Ranking |  |
| **Science**  **Engineering** | At least 85% of lessons provide opportunities for students to use phenomena and/or engineering problems as the basis of instruction and also span multiple lessons. Lessons in science submissions develop all three dimensions. | Select Ranking |  |
| At least 85% of lessons opportunities for students to activate prior knowledge and apply prior learning when investigating phenomena and/or engineering problems. | Select Ranking |  |
| **Science**  **Computer Science**  **Engineering**  **Mathematics** | Digital materials are web-based, compatible with a variety of internet browsers, and platform-neutral. | Select Ranking |  |
| The instructional framework has a comprehensive scope and sequence that includes a direct order in which skills are presented and allows for continued practice to build automaticity, skills building from the simple to more complex, and how knowledge and skills build and establish coherence within the course/within and across grade level bands (for mathematics, this includes supports for the natural learning progressions emphasized within the IAS for mathematics). | Select Ranking |  |
| At least 95% of lessons include **differentiated support to meet the needs of all students** including, but not limited to, students with special learning needs and English learners (e.g., linguistic scaffolds). | Select Ranking |  |
| Materials reflect content that is presented in a manner reflecting consideration of community standards, as well as experiential learning opportunities for hands-on activities, reflection, and authentic problems. | Select Ranking |  |
| **Mathematics** | At least 85% of lessons provide a balance of opportunities for students to build **conceptual understanding**, **procedural fluency**, and real-world application skills. There is intentional sequencing of conceptual understanding using visual models and/or concrete examples throughout the lessons and units. | Select Ranking |  |

**Section III: K-12 Required Criteria for Assessment**

Evidence must meet all criteria noted in Section III for the selected grade levels or course.

| **Subject(s)** | **Criteria** | **Determination:**  **Yes/No** | **Notes/Evidence** |
| --- | --- | --- | --- |
| **Science**  **Computer Science**  **Engineering**  **Mathematics** | Assessment materials assess the full depth and rigor required by the 2023 IAS, NLPS competencies, or AP learning objectives being reviewed. Assessment materials provide educators evidence of student learning to gauge progress toward grade- or course-level proficiency. | Select Ranking |  |
| Materials are age-appropriate in alignment with Indiana Academic Standards based on student need for the respective grade level. | Select Ranking |  |
| Assessment materials provide educators with various strategies to assess students’ prior knowledge within and across grade levels and/or throughout the course to guide instruction and differentiation. Assessment data allow for the adjustment of instruction in ways that support and extend students’ learning. | Select Ranking |  |
| At least 85% of lessons include multiple types of formative and summative assessments embedded throughout the materials (e.g., projects, presentations, homework assignments, surveys, common misconceptions, tests, student self-assessments, and in-class discussion prompts). | Select Ranking |  |
| Assessment materials offer students opportunities to demonstrate their knowledge and skills through a variety of strategies or methods. Scoring guides and student work examples are included for teachers and administrators to evaluate student work. | Select Ranking |  |

**Section IV: K-12 Required Criteria for Professional Development & Educator Support**

Evidence must meet all criteria noted in Section IV for the selected grade levels or course.

| **Subject(s)** | **Criteria** | **Determination:**  **Yes/No** | **Notes/Evidence** |
| --- | --- | --- | --- |
| **Computer Science** | Curriculum is identified as an [accredited professional development program](https://csteachers.org/pd-opportunities/accredited-pd/) by the Computer Science Teachers Association. | Select Ranking |  |
| At least 85% of instructional materials support teachers with differing levels of computer science content knowledge (i.e., computer science definitions and examples of computer science concepts are offered to support teacher learning). | Select Ranking |  |
| **Science**  **Engineering**  **Mathematics** | At least one day of professional development opportunities and explicit guidance for implementation, coaching, and evaluation is provided. | Select Ranking |  |
| All lessons include guidance and resources designed specifically to build teachers’ knowledge. Relevant supports bolster aspects of content knowledge (e.g., vocabulary) and pedagogical content knowledge (e.g., phenomenon-based instruction). | Select Ranking |  |
| All materials have clear and direct instructions that connect all applicable curricular resources. | Select Ranking |  |
| All lesson scripts/explanations are provided with explicit guidance to teach each concept in a systematic, cumulative way. | Select Ranking |  |

**Section V: K-12 Optional Criteria for High Quality Curricular Materials**

Evidence may meet the additional criterion noted in Section V but is not required for IDOE approval of submitted curricular materials.

| **Subject(s)** | **Criteria** | **Determination:**  **Yes/No** | **Notes/Evidence** |
| --- | --- | --- | --- |
| **Science**  **Computer Science**  **Engineering**  **Mathematics** | Curriculum includes at least 60% alignment with the 2023 Indiana Academic Standards for Integrated STEM at the corresponding grade level(s). Refer to specific standard counts [here](https://docs.google.com/spreadsheets/d/18EMbGs5UtAGPvyVrXqa2ZjLmmoA8Acbkuje7zWYGD-8/copy). | Select Ranking |  |

**Appendix A: Required Criteria for Alignment with State and Federal Law**

| **Legislation** | **Definition** |
| --- | --- |
| [IC 35-49-2-1](https://iga.in.gov/laws/2023/ic/titles/20#35-49-2-1) Obscene matter or performance | Sec. 1. A matter or performance is obscene for purposes of this article if:  (1) the average person, applying contemporary community standards, finds that the dominant theme of the matter or performance, taken as a whole, appeals to the prurient interest in sex;  (2) the matter or performance depicts or describes, in a patently offensive way, sexual conduct; and  (3) the matter or performance, taken as a whole, lacks serious literary, artistic, political, or scientific value. |
| [IC 35-49-2-2](https://iga.in.gov/laws/2023/ic/titles/20#35-49-2-2)) Matter or performance harmful to minors | Sec. 2. A matter or performance is harmful to minors for purposes of this article if:  (1) it describes or represents, in any form, nudity, sexual conduct, sexual excitement, or sado-masochistic abuse;  (2) considered as a whole, it appeals to the prurient interest in sex of minors;  (3) it is patently offensive to prevailing standards in the adult community as a whole with respect to what is suitable matter for or performance before minors; and  (4) considered as a whole, it lacks serious literary, artistic, political, or scientific value for minors. |

**Appendix B: Glossary**

| **Subject(s)** | **Term and/or Rubric Item** | **Definition/Clarification** |
| --- | --- | --- |
| **Science**  **Computer Science**  **Engineering**  **Mathematics** | Third-party research entity | An external research entity conducts an independent review of materials. Research entity team members must have significant demonstrated experience in curriculum/standards alignment and evaluation and hold advanced degrees in curriculum and instruction, educational measurement, or a related field. The third-party review must include evaluation of the criteria in the corresponding Indiana evaluation tool in each of the STEM domains.  Vendors submitting curricular materials to support implementation of an AP course may provide documentation of College Board’s endorsement of the curricular materials’ alignment with the respective AP course to satisfy the third-party review requirement.  Third-party review documentation may not be used to address other required elements. |
| Aligns with the focus, coherence, depth, and rigor of at least 85% of the 2023 Indiana Academic Standards (IAS), Next Level Programs of Study (NLPS) competencies, or AP learning objectives for the content area/grade level/course | The 85% is derived based on the number of IAS, NLPS competencies, or AP Learning Objectives within each grade level or course with which vendor-submitted materials align (e.g., NLPS course 7352 has 12 competencies: 12 x .85 = 10.2). See specific counts [here](https://docs.google.com/spreadsheets/d/18EMbGs5UtAGPvyVrXqa2ZjLmmoA8Acbkuje7zWYGD-8/copy). |
| Differentiated support to meet the needs of all students | Lessons are equipped with a variety of tools to support the instructional needs of students. Tools may include, but are not limited to, text-to-speech, speech-to-text, closed captions on videos, graphic organizers, digital documents, adjustable text size, adjustable Lexile(R) levels, adjustable scaffolding, note taking supports, summarization supports, virtual and physical manipulatives, |
| **Computer Science** | Multiple representations by adapting for a variety of different types of learners | Multiple representations can facilitate development of deeper understanding, especially of complex CS content. Multiple representations in STEM (e.g., words, symbols, graphs, diagrams, tables, formulas, models, physical and virtual manipulatives) should be used simultaneously to strengthen connections between representations. |
| **Mathematics** | Conceptual understanding | The comprehension of mathematical concepts, operations, and relations. Students with conceptual understanding know the “why” and the “how” behind the mathematics allowing for greater application. |
| Procedural fluency | The ability to efficiently, accurately, and flexibly apply strategies or procedures in a reasonable amount of time to solve problems. Mathematically fluent students may adapt their thinking to solve problems in more than one way. |