

#### **Evaluation Tool for High-Quality Curricular Materials for K-8 Science/Engineering**

The purpose of this evaluation tool is for a reviewer(s) to consider each component independently in relation to the overall rating defined. Each criteria (i.e., row) is defined as a yes/no determination. Criteria defined as a non-negotiable (Sections I, II, and III) must be indicated as "Yes" for further evaluation in Section IV (optional criteria). The review considers three specific process steps: 1) independent review by a credible third party research entity, 2) independent review by each educator reviewer, and 3) consensus by the Indiana Department of Education's (IDOE's) hosted review committee. Process steps and documentation provided by the curricular organization will inform the overall determination defined in step 3.

The reviewer(s) must complete the process for each row independently based on the evidence provided by the curricular organization. Anecdotes or research beyond what the organization explicitly provided will not inform ratings.

- 1. Review the **required** criteria in Sections I, II, and III and **optional** criteria in Section IV.
  - If there is a "Yes" for all required criteria (i.e., rows), materials receive an overall "Yes" for that section.
  - If there is a "No" for any of the required criteria (i.e., rows), materials receive an overall "No" for that section.
- 2. Materials must meet all required criteria in Sections I, II, and III. Criteria in Section IV are optional, but may serve as a point of differentiation across providers that successfully navigate the review process.
- 3. A curricular organization must receive an overall "Yes" in Sections I, II, and III to be deemed high-quality. Details about each organization's rating completed by the independent third party research entity must be submitted with the corresponding documentation for review.

Submissions are evaluated on the extent to which they meet all of the criteria noted below. Deficient submissions will be allowed one additional submission round to provide additional evidence or clarification for reviewers. The term "materials" is used throughout the rubric to mean "instructional materials" utilized by the educator or provided to students unless otherwise noted.

## Section I: K-8 Non-Negotiable Criteria for High-Quality Curricular Materials: Instruction

Evidence must meet all criteria noted in Section I.

| Key Element Required   | Determination:<br>Yes/No | Notes/Evidence |
|--|--------------------------|----------------|
| Curriculum includes at least 85% alignment with the 2023 Indiana Academic Standards for Science for the grade level being reviewed. This includes 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). | Select Ranking           |                |
| At least 85% of lessons utilize phenomena and engineering problems as the basis for instruction.   | Select Ranking           |                |
| At least 85% of lessons provide opportunities for students to activate prior knowledge and apply prior learning when investigating phenomena and engineering problems.   | Select Ranking           |                |
| Particular phenomena and engineering problems are the focus of specific lessons and also span multiple lessons developing all three dimensions.  | Select Ranking           |                |
| At least 85% of lessons provide opportunities for students to demonstrate a three-dimensional understanding of performance expectations.   | Select Ranking           |                |
| The instructional framework is scientifically accurate and has a comprehensive scope and sequence that includes a direct order in which skills are presented and allow for continued practice to build automaticity, skills building from the simple to more complex, and how knowledge and skills build and connect across grade levels.                              | 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 |  |
|---|----------------|--|
| Only Evaluated if Applicable Digital materials are web-based, compatible with a variety of internet browsers, and platform-neutral.   | Select Ranking |  |

## Section II: K-8 Non-Negotiable Criteria for High-Quality Curricular Materials: Assessment

Evidence must meet all criteria noted in Section II.

| Key Element Required  | Determination:<br>Yes/No | Notes/Evidence |
|---|--------------------------|----------------|
| Explicit guidance for all assessments includes scoring guides and student work examples for teachers and administrators to evaluate student performance.  | Select Ranking           |                |
| Formative assessments (e.g., classroom-based assessments, unit assessments, lesson-based summative assessments) are included within the instructional framework to continuously monitor progress and identify the skill level and needs of each student (e.g., assessments in student's home language when possible). | Select Ranking           |                |
| At least 85% of lessons include multiple types of formative and summative assessments, including but not limited to: projects, presentations, homework assignments, surveys, common misconceptions, tests, student self-assessments, and in-class discussion prompts.   | Select Ranking           |                |

# Section III: K-8 Non-Negotiable Criteria for High-Quality Curricular Materials: Professional Development and Educator Support

Evidence must meet all criteria noted in Section III.

| Key Element Required   | Determination:<br>Yes/No | Notes/Evidence |
|--|--------------------------|----------------|
| 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 might bolster aspects of content knowledge (e.g., science 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 IV: K-8 Optional Criteria for High-Quality Curricular Materials

Evidence may meet the additional criteria noted in Section IV to allow for a higher evaluation rating.

| Optional Key Element   | Determination:<br>Yes/No | Notes/Evidence |
|--|--------------------------|----------------|
| Curriculum has achieved a rating of "Meets Expectations" in Gateways 1, 2, and 3 from EdReports in the grade band under review (e.g., K-5, 6-8). | Select Ranking           |                |
| Curriculum includes at least 60% alignment with the 2023 Indiana Academic Standards for Integrated STEM at the corresponding grade level(s).     | Select Ranking           |                |
| Materials include experiential learning opportunities including hands-on activities, opportunities for reflection, and authentic problems.       | Select Ranking           |                |

<sup>&</sup>lt;sup>1</sup>IDOE anticipates this element to be required beginning with the 2024-2025 High-Quality Curricular Materials evaluation cycle. Applicant vendors are encouraged to pursue this designation if not already attained.