



# High-Quality Instructional Materials

OFFICE OF CURRICULUM AND INSTRUCTION



**OKLAHOMA**  
Education

# Oklahoma Science Instructional Materials Evaluation Rubric

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Instructional materials selection is an important district decision, and conducting a thorough review of instructional materials at the local level is essential in ensuring the adoption of high-quality instructional materials that meet the needs of students within a district. This evaluation rubric is designed to offer an evaluation structure that districts can utilize to determine how well instructional materials align to the [Oklahoma Academic Standards for Science](#) (OAS-S) and other criteria for high-quality instructional materials for science. The evaluation rubric includes key considerations for high-quality instructional materials and outlines four **Gateways** for consideration when evaluating materials. Within each Gateway, **Criterion** and related **Indicators** are provided along with **Guiding/Key Questions**. Additionally, **Priority Indicators** are indicated with an asterisk (\*) in an effort to draw reviewers' attention to aspects of the reviewed materials that will likely need to be supplemented if the given instructional materials are adopted. Each **Indicator** is evaluated as Does Not Meet, Partially Meets, or Meets using a 0-1-2 or 0-2-4 scale score.

The evaluation rubric is designed to allow reviewers to determine a threshold for quality for each gateway. If instructional materials do not meet the thresholds for meets or partially meets expectations for a Gateway, reviewers are prompted to not to move forward with reviewing the other Gateways as the materials.

- ☐ **Gateway 1:** Alignment to Standards, Learning Progressions, and Student-Centered Practices
  - ☐ Advance to Gateway 2 only if Meets Expectations or Partially Meets Expectations.
- ☐ **Gateway 2:** Equity
  - ☐ Advance to Gateway 3 only if Meets Expectations or Partially Meets Expectations.
- ☐ **Gateway 3:** Instructional Support and Assessment
  - ☐ Advance to Gateway 4 only if Meets Expectations or Partially Meets Expectations.
- ☐ **Gateway 4:** Access and Technology

Remember to focus on what is present in the instructional materials and any supplemental resources rather than what might be inferred. All scores should be based on evidence observed from the instructional materials themselves.

Title of Material(s)		Grade(s) Evaluated	
Publisher		Reviewer	

Review Summary	Criterion	Score	Rating
Gateway 1: Alignment to Standards, Learning Progressions, and Student-Centered Practices	1.1		
	1.2		
	1.3		
	Sub-Total		
Gateway 2: Equity	2.1		
	2.2		
	Sub-Total		
Gateway 3: Instructional Support and Assessment	3.1		
	3.2		
	Sub-Total		
Gateway 4: Access and Technology	4.1		
	Sub-Total		
<b>Overall Rating</b> <b>Meets:</b> All Gateways are Meets <b>Partially Meets:</b> All Gateways are Partially Meets or Better <b>Does Not Meet:</b> Any Gateway is Does Not Meet	<b>Total Score</b>	<b>Final Rating</b>	

## Gateway 1: Alignment to Standards, Learning Progressions, and Student-Centered Practices

High quality science instructional materials are aligned to the OAS-S support student sensemaking of science concepts and practices through intentionally structured sequences of learning and leverage real-world phenomena and/or problems to engage students. To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

Gateway 1 Overview	Available Points
<b>Criterion 1.1: Standards Alignment</b> <b>Indicators 1a-1d</b> Materials provide opportunities for student engagement using the three dimensions of science (disciplinary core ideas, crosscutting concepts, and science and engineering practices).	12
<b>Criterion 1.2: Learning Progressions</b> <b>Indicators 1e-1h</b> Instructional materials are coherent and consistent with the progressions in the OAS-S, both within grades and across grade bands.	12
<b>Criterion 1.3: Student-Centered Practices</b> <b>Indicators 1i-1m</b> Materials leverage real-world, observable events and/or problems to deepen student understanding and use of the three dimensions of science.	14
<b>Total Available Points in Gateway 1</b>	<b>38</b>



Criterion 1.1 Standards Alignment		Materials provide opportunities for student engagement using the three dimensions of science (disciplinary core ideas, crosscutting concepts, and science and engineering practices).		
Indicators	Guiding/Key Questions	Score	Comments	
<b>*1a.</b> Incorporates all grade-level: <ul style="list-style-type: none"> <li><input type="checkbox"/> Performance Expectations (PE)</li> <li><input type="checkbox"/> Disciplinary Core Ideas (DCI)</li> <li><input type="checkbox"/> Science and Engineering Practices (SEP)</li> <li><input type="checkbox"/> Crosscutting Concepts (CCC)</li> </ul>	Are all components of the Oklahoma Academic Standards for Science included for each grade-level/subject area?	0 2 4	<i>* If any Priority Indicator scores zero (0), comments should be included.</i>	
<b>1b.</b> Explicitly state which science standards are addressed by each lesson, chapter, and/or unit.	Do the instructional materials indicate where each standard is taught?	0 1 2		
<b>*1c.</b> Designed to integrate science and engineering practices, disciplinary core ideas, and crosscutting concepts into student learning.	Are the materials designed for students to actively engage with SEPs and CCCs to deepen understanding of the science concepts?	0 2 4		
<b>1d.</b> Include 3-dimensional learning objectives and/or 2-dimensional learning objectives that build to 3-dimensional learning across lessons, chapters, and/or units.	Do the learning goals use SEPs and CCCs in figuring out science concepts?	0 1 2		
<b>Criterion 1.1 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>	<b>Rating</b>
		<b>/ 12</b>	<b>Meets:</b> 11-12 <b>Partially Meets:</b> 6-10 <b>Does Not Meet:</b> 0-5	

Criterion 1.2 Learning Progressions		Instructional materials are coherent and consistent with the progressions in the OAS-S, both within grades and across grade bands.		
Indicators	Guiding/Key Questions	Score	Comments	
*1e. Materials leverage students' prior knowledge and experiences.	Do the materials elicit and leverage students' prior knowledge and experience to support learning new concepts and skills?	0 2 4	* If any Priority Indicator scores zero (0), comments should be included.	
*1f. Materials provide a scope and sequence designed to build student understanding of disciplinary core ideas, crosscutting concepts, and science and engineering practices within and across units.	Do the teacher materials explain how activities within lessons are designed to enhance student understanding of disciplinary core ideas, crosscutting concepts and science and engineering skills within and across units?	0 2 4		
1g. Materials provide teacher supports designed to help students understand the connections between units.	Are the materials designed with an intentional sequence?	0 1 2		
1h. Teacher materials provide content background information and explanations for how the phenomena and/or problems are connected to the dimensions targeted in the instruction.	Do the teacher materials provide background content knowledge that is accurate, understandable, and gives true assistance to educators using the materials?	0 1 2		
Criterion 1.2 Summary		Sub-Total	Rating Levels	Rating
		/ 12	Meets: 11-12 Partially Meets: 6-10 Does Not Meet: 0-5	

<b>Criterion 1.3</b> <b>Instructional Design:</b> <b>Student-Centered Practices</b>	Materials leverage real-world, observable events and/or problems to deepen student understanding and use of the three dimensions of science.		
Indicators	Guiding/Key Questions	Score	Comments
<b>*1i.</b> Materials actively engage students in explaining phenomena and/or designing solutions to problems through the use of the science and engineering practices and crosscutting concepts.	Do the materials engage all students in learning experiences about phenomena and/or problems that are connected to the identified science content?	0 2 4	<i>* If any Priority Indicator scores zero (0), comments should be included.</i>
<b>1j.</b> Students are engaging with phenomena and/or problems in a variety of ways (e.g., text, observations, multimedia, simulations, etc.).	Are phenomena and/or problems not appropriate for first-hand observation presented using multimedia, simulations or other resources?	0 1 2	
<b>1k.</b> Materials engage students with the same phenomenon and/or problem throughout the chapter/unit (not just used as an introduction to the chapter/unit).	Are the science ideas and practices presented throughout the chapter/unit support students in figuring out the phenomenon and/or solution to the problem?	0 1 2	
<b>*1l.</b> Materials provide opportunities for students to apply their understanding to new phenomena and/or problems.	Do the materials provide students with opportunities to apply their understanding to new contexts?	0 2 4	
<b>1m.</b> Materials include suggestions for how to connect instruction to the students' home, neighborhood, community, and/or culture as appropriate.	Do the materials identify possible connections between science content and student homes, neighborhoods and communities?	0 1 2	
<b>Criterion 1.3 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>
		<b>/ 14</b>	<b>Meets:</b> 13-14 <b>Partially Meets:</b> 7-12 <b>Does Not Meet:</b> 0-6

Gateway 1 Points Available	Rating Levels	Gateway 1 Points Achieved	Gateway 1 Rating
38	Meets: 35-38	/ 38	
	Partially Meets: 19-34		
	Does Not Meet: 0-18		
Gateway 1 Comments			



## Gateway 2: Equity

Gateway 2 examines the way materials incorporate techniques and approaches that provide the structure needed to support and engage all students in learning science. To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

**❑ Materials must receive a score of Meets Expectations or Partially Meets Expectations in Gateway 1 in order to be reviewed in Gateway 2.**

Gateway 2: Overview	Available Points
<b>Criterion 2.1: Student Identity and Interest</b> <b>Indicators 2a-2d</b> Materials encompass a range of techniques and approaches that build on students' interest and backgrounds to engage them more meaningfully and support them in sustained learning.	8
<b>Criterion 2.2: Exceptionalities and Differentiations</b> <b>Indicators 2e-2g</b> Materials meet the needs of a variety of learners and provide extensive opportunities and support to engage with science concepts and practices.	6
<b>Total Available Points in Gateway 2</b>	<b>14</b>

Criterion 2.1 Student Identity and Interest	Materials encompass a range of techniques and approaches that build on students' interest and backgrounds to engage them more meaningfully and support them in sustained learning.		
Indicators	Guiding/Key Questions	Score	Comments
<b>2a.</b> Materials are designed to leverage diverse, cultural and social backgrounds of students.	Do the materials connect to students' everyday knowledge and experiences , culture, or	0 1 2	

	community?			
<b>2b.</b> Materials include a balance of images or information about people, representing various demographic and physical characteristics.	Do the materials depict different genders, races, ethnicities and other physical characteristics?	0 1 2		
<b>2c.</b> Materials' learning goals, instructional activities, text, images, problems and/or phenomena are relevant, interesting and/or motivating to students.	Do the materials engage students in learning experiences that are relevant and valuable to students?	0 1 2		
<b>2d.</b> Materials avoid stereotypes that might be offensive.	Are materials free of bias?	0 1 2		
<b>Criterion 2.1 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>	<b>Rating</b>
		<b>/ 8</b>	<b>Meets: 7-8 Partially Meets: 4-6 Does Not Meet: 0-3</b>	

<b>Criterion 2.2 Exceptionalities and Differentiation</b>	Materials meet the needs of a variety of learners and provide extensive opportunities and support to engage with science concepts and practices.		
<b>Indicators</b>	<b>Guiding/Key Questions</b>	<b>Score</b>	<b>Comments</b>
<b>2e.</b> Materials provide appropriate accommodations and/or modifications for numerous special populations (e.g., special education, gifted and talented, English language learners, etc.) that will support their regular and active participation in learning science and engineering.	Do the materials include accommodations and/or modifications that support diverse populations?	0 1 2	

<b>2f.</b> Materials provide specific resources and strategies for differentiated instruction.	Do the differentiation resources and strategies include depth, complexity, and/or pacing specific to each activity and/or unit?	0 1 2		
<b>2g.</b> Materials accommodate different entry points to the learning of phenomena and/or solving problems, without detracting from the learning goal.	Are the differentiated tasks modified to ensure work is on grade band but accessible to special populations of students, including students identified for gifted and talented services?	0 1 2		
<b>Criterion 2.2 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>	<b>Rating</b>
		<b>/ 6</b>	<b>Meets: 5-6 Partially Meets: 3-4 Does Not Meet: 0-2</b>	

Gateway 2 Points Available	Rating Levels	Gateway 2 Points Achieved	Gateway 2 Rating
14	Meets: 12-14	/ 14	
	Partially Meets: 7-11		
	Does Not Meet: 0-6		
Gateway 2 Comments			

## Gateway 3: Instructional Support and Assessment

Gateway 3 examines the ways in which materials support teachers to fully utilize the curriculum, and understand the skills and learning of their students. To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

- ❑ **Materials must receive a score of Meets Expectations or Partially Meets Expectations in Gateway 2 in order to be reviewed in Gateway 3.**

Gateway 3: Overview	Available Points
<b>Criterion 3.1: Teacher Supports and Supplemental Materials</b> <b>Indicators 3a-3e</b> Teacher guides and ancillary resources are designed to support educators not only in using the materials, but also in understanding how the materials support student learning.	10
<b>Criterion 3.2: Assessment</b> <b>Indicators 3f-3i</b> Materials offer assessment opportunities that measure progress and elicit direct, observable evidence of the degree to which students can independently demonstrate the assessed standards. Materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress towards the standards.	10
<b>Total Available Points in Gateway 2</b>	<b>20</b>

Criterion 3.1 Teacher Supports and Supplemental Materials	Teacher guides and ancillary resources are designed to support educators not only in using the materials, but also in understanding how the materials support student learning.		
Indicators	Guiding/Key Questions	Score	Comments
<b>3a.</b> Teacher materials contain guidance for how to implement and use the student materials, ancillary materials, and/or technology tools.	Do the materials explain the instructional approaches of the program?	0 1 2	

<b>3b.</b> Materials designed for each grade level are feasible for one school year.	Do the materials provide a pacing guide, including support for making instructional decisions about modifications to the materials when instructional time is short?	0 1 2		
<b>3c.</b> Materials embed clear safety guidelines for teachers and students, including how to safely use equipment.	Do the materials contain clear directions for how to safely use items needed to carry out investigations/activities?	0 1 2		
<b>3d.</b> Materials include a comprehensive list of items needed (consumables and non-consumables) to carry out investigations, activities and/or lessons.  For materials that are kit-based: <input type="checkbox"/> Kits can be easily stored <input type="checkbox"/> Kit items are clearly labeled and easy to find when needed	Do the materials provide a list of all resources needed to complete an activity?	0 1 2		
<b>3e.</b> Materials provide suggestions for informing caregivers about the science program, how to support student progress and achievement, and are in multiple languages.	Do the materials provide handouts for caregivers that describe how they can help support student progress and achievement?	0 1 2		
<b>Criterion 3.1 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>	<b>Rating</b>
		<b>/ 10</b>	<b>Meets:</b> 9-10 <b>Partially Meets:</b> 5-8 <b>Does Not Meet:</b> 0-4	

<b>Criterion 3.2 Assessment</b>	Materials offer assessment opportunities that measure progress and elicit direct, observable evidence of the degree to which students can
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independently demonstrate the assessed standards.			
Indicators (*denotes priority indicators)	Guiding/Key Questions	Score	Comments
<b>*3f.</b> Assessment tasks are provided that align with the three dimensions of science (i.e., disciplinary core ideas, crosscutting concepts, science and engineering practices) of identified performance expectations/standards.	Do the assessment tasks assess a student's understanding of the three-dimensions associated with targeted standards?	0 2 4	* If any Priority Indicator scores zero (0), comments should be included.
<b>3g.</b> Materials embed a variety of formative assessment opportunities throughout the unit.	Are there formative assessment opportunities embedded throughout the units (e.g., classroom discussion, modeling, short explanations)?	0 1 2	
<b>3h.</b> Tools are provided for scoring assessment items (e.g., sample student responses, rubrics, scoring guidelines, and open-ended feedback).	Do the materials provide guidance for evaluating assessment items?	0 1 2	
<b>3i.</b> Assessments include a variety of modalities and measures (e.g., performance tasks, discussion questions, constructed response questions, project- or problem-based tasks, portfolios, justified multiple choice).	Do the materials provide multiple or alternative formats for students to express their ideas during instruction and/or assessment?	0 1 2	
<b>Criterion 3.2 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>
		<b>/ 10</b>	<b>Meets:</b> 9-10 <b>Partially Meets:</b> 5-8 <b>Does Not Meet:</b> 0-4



Gateway 3 Points Available	Rating Levels	Gateway 3 Points Achieved	Gateway 3 Rating
20	Meets: 18-20	/ 20	
	Partially Meets: 10-17		
	Does Not Meet: 0-9		
Gateway 3 Comments			

## Gateway 4: Access and Technology

Schools can use digital resources in a variety of ways to support teaching and learning. To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion

- ❑ **Materials must receive a score of Meets Expectations or Partially Meets Expectations in Gateway 3 in order to be reviewed in Gateway 4.**

Gateway 4: Overview	Available Points
<b>Criterion 4.1: Accessibility and Technology</b> <b>Indicators 4a-4e</b> Materials integrate digital technology and interactive tools, when appropriate, in ways that support student engagement in the three dimensions of science.	8
<b>Total Available Points in Gateway 4</b>	8

Criterion 4.1 Accessibility and Technology	Materials integrate digital technology and interactive tools, when appropriate, in ways that support student engagement in the three dimensions of science.		
Indicators	Guiding/Key Questions	Score	Comments
4a. Materials integrate digital technology and interactive tools (e.g., data collection tools, simulations, modeling, discussion groups) in ways that support student engagement in the 3 dimensions of science.	Do the embedded technology links enhance learning for all students?  Do the included digital tools support student engagement in the three dimensions of science?	0 1 2	
4b. Teachers can manipulate digital materials to construct personalized learning	Are teachers able to customize digital materials for local use?	0 1 2	

experiences or differentiate materials for individual students.				
4c. Digital materials are “platform neutral” (operable on any device) and are compatible with multiple operating systems and internet browsers.	Do the materials identify whether digital resources are web-based, compatible with multiple internet browsers, and/or are accessible on both Windows and Apple platforms?	0 1 2		
4d. Non-digital versions of the materials are available for students without off campus internet access.	Do the materials provide non-digital alternatives for activities that require access to technology?	0 1 2		
<b>Criterion 4.1 Summary</b>		<b>Sub-Total</b>	<b>Rating Levels</b>	<b>Rating</b>
		<b>/ 8</b>	<b>Meets: 7-8 Partially Meets: 4-6 Does Not Meet: 0-3</b>	

Gateway 4 Points Available	Rating Levels	Gateway 4 Points Achieved	Gateway 4 Rating
8	Meets: 7-8	/ 8	
	Partially Meets: 4-6		
	Does Not Meet: 0-3		
Gateway 4 Comments			