Criteria for the Review and Adoption of Instructional Materials for:
Category 1, 2, and 3: Oregon Science – Grades K-5, 6-8, and 9-12

Legal Requirements Section

1. Basal Instructional Materials Criteria

   The submitted materials must make up an organized system of instruction that aligns with 2022 Oregon Science Standards, including the Science and Engineering Practices, Crosscutting Concepts, and Disciplinary Core Ideas.

   Does the program meet the above requirements for basal instructional materials?

   Yes No

2. Equity Criteria

   Submitted materials must provide models, selections, activities, and opportunities for responses, which promote respect for all people described in ORS 659.850 and OAR 581-021-0045; materials must support program compliance standards described in OAR 581-021-0046.

   Does the program meet the above requirements for equity?

   Yes No

3. National Instructional Materials Accessibility Standard (NIMAS)

   Submitted materials must include assurance from the publishers agreeing to comply with the most current NIMAS specifications regarding accessible instructional materials. NIMAS files must be submitted to the National Instructional Materials Access Center (NIMAC) by February 1, 2024.

   Does the program meet the above requirements for NIMAS?

   Yes No

4. Digital Manufacturing Standards and Specifications for Textbooks (MSST Form B and M):

   Submitted materials must include assurance from the publishers agreeing to comply with the most current manufacturing standards and specifications (MSST Form B and M).

   Does the program meet the above MSST requirements?

   Yes No

Part 1: Oregon Science Baseline Criteria [K-HS]

Criterion	Description	Metric 1	Metric 2	Metric 3	Metric 4
Criterion 1.1: Alignment to Three-Dimensional (3D) Learning	Materials reflect the 3D focus of the Oregon Science Standards to integrate the disciplinary core ideas (DCI), science and engineering practices (SEP), and crosscutting concepts (CCC) within and across grade levels and/or grade bands.	**3D INTEGRATION** Materials consistently and explicitly integrate all of the disciplinary core ideas, science and engineering practices, and crosscutting concepts that meet the full intent of grade-level and/or grade-band standards by the end of instruction.	**NATURE of SCIENCE** Materials explicitly align with the nature of science and the intersection of those understandings with science and engineering practices, disciplinary core ideas, and crosscutting concepts (NGSS: Appendix H).	**TRANSDISCIPLINARY CONNECTIONS** Materials include meaningful connections across disciplines to create learning opportunities for greater depth and complexity to address relevant engineering, scientific and societal challenges (e.g. STEM, mathematics, social science, language arts, health, career connected learning).	
Criterion 1.2: Science Phenomena & Engineering Design-Based Engagement	Materials center science phenomena and engineering design problems that drive student learning and engage students as directly as possible in authentic and relevant experiences.	**CONCEPTUAL UNDERSTANDING** Phenomena and/or problems: ● target learning goals across the three dimensions; ● connect to grade-level and/or grade-band disciplinary core ideas; ● create shared student experiences as entry points to learning.	**SENSE-MAKING/PROBLEM SOLVING** Materials center opportunities for students to: ● communicate their thinking through reflection and explanation; ● apply scientific understandings to make sense of phenomena and design solutions to problems.	**AUTHENTIC APPLICATION** Materials include meaningful contexts for students to practice key skills and build important concepts by: ● making connections to their daily lives, including to their homes, neighborhoods, and communities; ● build upon students' cultural funds of knowledge.	
Criterion 1.3: Learning Progressions & Coherent Storylines	Materials integrate conceptual understanding linked to empirical evidence and explanations that allow students' understanding to deepen and become more complex over time across the three dimensions (NGSS: Appendix E, Appendix F, and Appendix G).	**COHERENT STORYLINES** Materials explicitly identify: ● how grade-appropriate 3D learning builds within a lesson or unit; ● how learning builds across grade levels, grade bands, and/or within a high school course(s).	**DEVELOPMENTAL PROGRESSION** Materials include multiple opportunities for students to build and apply knowledge and skills over time (i.e. lessons, units, grade level and/or grade bands) within the disciplinary core ideas, science and engineering practices, and the crosscutting concepts.	**STUDENT AGENCY** Materials include opportunities for student-driven learning sequences through questions and discourse that center students' lived experiences as they relate to the phenomenon and/or problem.	

Part 2: Equitable Student Engagement and Cultural Pedagogy Criteria [K-HS]

Criterion	Description	Metric 1	Metric 2	Metric 3	Metric 4
Criterion 2.1: Engagement & Motivation	Materials give opportunities for student-driven learning**,** and rigor is maintained across all options. Materials should focus on relevant topics, authentic contexts, and experiences, and give students the opportunity to make connections with their goals, interests, and values.	**RELEVANCE** Materials include relevant topics of student interest and strategic access to authentic contexts and tools that give students the freedom to make connections to their experiences, goals, and interests. Additionally, materials support the value of science as a sensible, useful, and worthwhile subject.	**COLLABORATIVE LEARNING** Materials include tasks that provide students opportunities to engage in the process of learning collaboratively, as well as, opportunities to express their learning individually.	**INDIVIDUAL STUDENT ADAPTABILITY** Materials include instructional strategies for supporting unfinished learning from prior grade levels and extensions for students who are ready to deepen their understanding of grade-level content.	
Criterion 2.2: Culturally Responsive Instructional Support	Culturally responsive instruction refers to the explicit recognition and incorporation of students' cultural knowledge, experience, and ways of being and knowing in science teaching, learning, and assessment.	**ASSET-BASED PERSPECTIVE** Materials support educators to identify, value, and maintain a high commitment to students' experiences from their homes and communities that are leveraged as resources for science teaching and learning.	**FRAMES OF REFERENCE** Materials utilize multiple frames of reference for developing and demonstrating science competence that correspond to a variety of cultural perspectives and experiences.	**INCLUSIVE CULTURAL VIEWS** Materials include pathways to science competence that leverage cultural perspectives that affirm student identities and reflect knowledge of students' background experiences and social realities.	

Part 3: Technical Usability Criteria [K-HS]

Criterion	Description	Metric 1	Metric 2	Metric 3	Metric 4
Criterion 3.1: Supports for Teachers	The materials include opportunities for teachers to effectively plan and utilize materials with integrity and to further develop their own understanding of the content.	**SUPPORTING GUIDANCE** Materials provide teacher guidance with useful annotations and suggestions for how to utilize the student materials, visual models, and ancillary materials, with specific attention to engaging students to guide their scientific development.	**SCIENCE KNOWLEDGE FOR TEACHING** Materials contain adult-level explanations and examples of relevant science concepts so that teachers can improve their own knowledge of the subject.	**HOME CONNECTION** Materials provide strategies for informing all partners–including students, parents, or caregivers–about the program and suggestions for how they can help support student progress and achievement.	**CONTENT EDITABILITY** Materials are designed to allow a teacher to differentiate content and varied modes of communication within lessons, tasks, or other activities for students.
Criterion 3.2: Supports for Students	Materials have explicit teacher support with suggestions (routines, strategies, etc.) for how they can meet the needs of individual learners. Support materials include live updates (data sources, current events, etc.).	**STRATEGIES FOR SPECIAL POPULATIONS** Materials provide scaffolds to support students from special populations in their regular and active participation in scientific learning (i.e. students who are multilingual, students experiencing disabilities, and/or students identified as TAG).	**STUDENT DIFFERENTIATION** Materials provide extensions and/or opportunities for all students to engage with grade-level science at varied levels of complexity.	**EMERGENT BILINGUAL STUDENT SUPPORT** Materials provide strategies and support for students who read, write, and/or speak in a language other than English to enable their full participation in scientific learning.	**STUDENT EDITABILITY** Digital materials include resources for students that are editable and allow for communication of understanding and thinking.
Criterion 3.3: Digital Learning Design Elements *This criterion is not required. Quality indicators are provided for evaluation if digital components are included.	The materials are attentive to digital design elements specific to structure, support for users, and adaptability of materials.	**MATERIALS USABILITY** The organizational structure of the digital materials allows for intuitive navigation and meaningful interaction on a variety of devices.	**LEARNING RESOURCES** The digital materials provide support for users in a variety of settings, including: ● Professional learning resources to support educators' use of the materials ● Robust supports to help families understand and utilize the materials while supporting their students at home ● Support for students working independently.	**MEDIA INTEGRATION** Digital and multimedia elements support, rather than distract from, intended learning outcomes and instructional content.	**ADAPTABILITY OF MATERIALS** Digital materials allow teachers to adjust and adapt documents and other included resources to meet student needs.

Part 4: Assessment Criteria [K-HS]

Criterion	Description	Metric 1	Metric 2	Metric 3	Metric 4
Criterion 4.1: Formative Assessment Process	Instructional materials incorporate the formative assessment process: ● Materials employ clear learning goals and performance criteria to elicit evidence of student thinking. ● Feedback informs the teaching and learning process. ● Students have agency to monitor and adjust their own learning.	**CLARITY OF LEARNING GOALS** Materials are designed around clear learning goals and written in grade-appropriate, student-friendly language.	**ELICITATION OF EVIDENCE** Instructional tasks and activities elicit a variety of evidence of student thinking, including opportunities for student self-assessment and reflection.	**INTERPRETATION OF FEEDBACK** Materials facilitate the provision of meaningful and strengths-based feedback to move learning forward. ● Student-to-student ● Educator-to-student ● Student-to-educator	**ACTION & ADJUSTMENT** Materials guide educators and students to act on feedback and determine the next steps for learning.
Criterion 4.2: Performance Assessments	Materials center science phenomena and engineering design problems that align with the depth, breadth, and cognitive demand of the standards. High-quality performance assessments: ● affirm students' funds of knowledge and interests. ● integrate the three dimensions to allow for multiple representations of thinking. ● can be iterated over time.	**ALIGNMENT** Materials include performance tasks that show clear and full alignment to science standards and reflect the 3D focus by including the disciplinary core ideas, crosscutting concepts, and science and engineering practices.	**CULTURAL AFFIRMATION** Performance assessments utilize and affirm students' interests and cultural backgrounds. Tasks are suitable for both group and individual engagement.	**AUTHENTICITY** Performance assessments allow students to work with relevant science phenomena, engineering design problems, and authentic audiences.	**CLARITY & FEEDBACK** Performance assessments use clear scoring criteria and allow for multiple iterations of student thinking based on feedback.
Criterion 4.3: Integrated Assessment System* ***This criterion is not required. Quality indicators are provided for evaluation if an integrated assessment system is present.**	Diagnostic, benchmark, and/or interim assessments are integrated into instructional materials in ways that support the learning process. Student results are interpreted relative to the performance expectations of the standards (i.e. criterion-referenced), as demonstrated by student evidence gathered in the learning environment, and recommend instructional next steps.	**ASSESSMENT DESIGN** Diagnostic assessments are well-designed, rigorous, connected to standards, and offer multiple opportunities for demonstrations of knowledge.	**DATA QUALITY** The assessment system provides clear and actionable data that allow educators to respond to specific student strengths and opportunities for growth.	**RESPONSIVENESS** The assessment system is connected to resources designed to meet students' specific opportunities for growth. Intervention and extension materials effectively accelerate student learning. (These resources serve to answer the question, "Now what?")	**FAMILY ENGAGEMENT & COMMUNICATION** If the assessment system provides reports and/or diagnostic information to families, those resources are accessible in multiple languages that allow families to effectively partner with their child(ren) in the learning process.