EduSmart Science Grade 7

EduSmart Science Grade 7 Executive Summary

Section 1. Science-Related Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS) Alignment

Grade	TEKS Student %	TEKS Teacher %	ELPS Student %	ELPS Teacher %
Grade 6	100%	100%	100%	100%
Grade 7	100%	100%	100%	100%
Grade 8	100%	100%	100%	100%

Section 2. Instructional Anchor

- The materials are designed to strategically and systematically integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.
- The materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.

Section 3. Knowledge Coherence

- The materials are designed to build knowledge systematically, coherently, and accurately.
- The materials provide educative components to support teachers' content and coherence knowledge.

Section 4. Productive Struggle

- The materials provide opportunities for students to engage in productive struggle through sensemaking that involves reading, writing, thinking, and acting as scientists and engineers.

Section 5. Evidence-Based Reasoning and Communicating

- The materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.
- The materials provide some teacher guidance to support student reasoning and communication skills.

Section 6. Progress Monitoring

- The materials include some variety of TEKS-aligned and developmentally appropriate assessment tools.
- The materials include guidance that explains how to analyze and respond to data from assessment tools.

- The assessments are clear and easy to understand.

Section 7. Supports for All Learners

- The materials provide guidance on fostering connections between home and school.
- The materials include listening, reading, writing, and speaking supports to help Emergent Bilinguals meet grade-level science content expectations.
- The materials include a variety of research-based instructional methods that appeal to a variety of learning interests and needs.
- The materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

Section 8. Implementation Supports

- The materials include year-long plans with practice and review opportunities that support instruction.
- The materials include some classroom implementation support for teachers and administrators.
- The materials provide implementation guidance to meet variability in program design and scheduling.

Section 9. Design Features

- The visual design of materials is clear and easy to understand.
- The materials are intentionally designed to engage and support student learning with the integration of digital technology.
- The digital technology or online components are developmentally and grade-level appropriate and provide support for learning.

Section 10. Additional Information

- The publisher submitted the technology, price, professional learning, and additional language supports.

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Indicator 2.1

Materials are designed to strategically and systematically integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.

1	Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS.	M
2	Materials provide multiple opportunities to make connections between and within overarching concepts using recurring themes.	M
3	Materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS.	M
4	Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions, plan and conduct classroom, laboratory, and field investigations, engage in problem-solving to make connections across disciplines, and develop an understanding of science concepts.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. Materials are designed to strategically and systematically integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.

Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS. Materials provide multiple opportunities to make connections between and within overarching concepts using recurring themes. Materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS. Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions, plan and conduct classroom, laboratory, and field investigations, engage in problem-solving to make connections across disciplines, and develop an understanding of science concepts.

Evidence includes but is not limited to:

Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS.

- Grade 7 materials use Anchoring Phenomena to connect content standards to engineering practices and "engage students with real-world challenges and situations." Grade 7 materials provide opportunities for students to design and conduct grade-appropriate experiments: In Activity 7.6C, students design their own procedure based on what they learned in part 1.
- The scientific and engineering practices (SEPs) can be found throughout the units, such as 7.6D, "Aqueous Solutions," in which students perform an inquiry investigation. In 7.6E, "Factors Affecting Dissolving," students engage in an Engineering Design Challenge activity.
- Within materials, each unit 5E Engage activity is centered around an anchoring phenomena.
- Materials provide a section on its website called Scientific and Engineering Practices (SEPs) that teachers can click on and explore activities that implement SEPs. For example, materials provide

a unit called “Introduction to Science” for the beginning of the school year to develop foundational skills to be applied throughout the school year. For example, in grade 7, an Instruction Module is provided to review science lab safety and different types of investigations. Students review Descriptive Investigations and learn to conduct Comparative Investigations, which include collecting data from observations made when comparing two or more objects under varying conditions. In another grade 7 example, there are activities specifically covering SEPs. These include: Investigation Activities “Watersheds,” “Feed the Finches!,” and “Variability and Survival – Mass Matters!;” Instructional Modules “Comparative Investigations,” “Descriptive Investigations,” “Analyzing Data from Descriptive Investigations,” and “Safety;” Hands-on Activities “Safety First!,” “Move it! Move it! – Molecules in Motion,” “Science Safety Scenarios,” “Current Research Social Media in Classrooms,” “Current Research Young Inventors,” “Past Research Cecilia Payne,” “Past Research Current Wars,” and “Informed Decisions – Bottled Water;” Word Explorer “Scientific Investigation and Reasoning;” a Journal Activity “Safe Practices and Safety Equipment;” Readers “The Grand Canyon: A Window to Earth’s History,” “Beyond Visible – The New Photovoltaic Technologies,” “What Goes Up,” and “Theories and Laws;” and the quiz “Safety and Scientific Investigation.”

Materials provide multiple opportunities to make connections between and within overarching concepts using recurring themes.

- Grade 7 Scope and Sequence provides the suggested recurring themes and concepts (RTC) connections. Grade 7 Scope and Sequence provides suggested RTC connections aligned to the grade-level content standards.
- Materials use recurring themes throughout, such as patterns being used in the reader activity for unit lesson 8.6B, “The Periodic Table,” in which students are asked to model the rate of dissolution, and activity 7.6E, in which students make connections with size, scale, and properties. The materials use the reader as another opportunity to incorporate the recurring themes, as in the same 7.6E unit where students connect the topic with the cause-and-effect recurring theme. Additionally, in the Scope and Sequence document, various recurring themes are connected to the units throughout the grade level. The materials provide opportunities for students to learn about and understand the RTCs at the start of the year. Materials provide a short Instructional Module for each of the RTCs to help students understand how scientists use them to understand the world.
- The materials provide a section on its website called “Recurring Themes and Concepts (RTCs).” This category has each RTC standard listed with activities found within each of these standards.

Materials strategically and systematically develop students’ content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS.

- Grade 7 materials are designed to develop and build student skills and content knowledge using anchoring phenomena that are appropriate to the grade level as outlined in the TEKS. Grade 7 materials contain a Scope and Sequence that list SEPs, RTCs, and the development of conceptual understanding. The updated implementation guide now “offers instructional materials specifically tailored to scientific and engineering practices” that can be integrated during instructional modules, interactives, hands-on activities, and in-lab rules. The materials provided an instructional module, instructional module companion, and student review for each standard. These materials allow teachers to strategically introduce and systematically develop content knowledge as outlined in the TEKS.

- The materials in the Teacher's Guide of the Unit Teacher Resources provide prerequisite information for each TEKS within the unit in addition it gives common misconceptions that students may have regarding that topic.
- Materials strategically and systematically organizes the content on its website to develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS. The materials are organized into categories, including scientific and engineering practices (SEPs), recurring themes and concepts (RTCs), and reporting categories. The reporting categories are further broken down into the standards that align with the reporting category. For example, in grade 7, the reporting category for Force, Motion, and Energy is broken down into units that address specific standards: "Speed, Distance, and Time" – 7.7(A)(B), "Newton's First Law of Motion" – 7.7(B)(D), and "Thermal Energy Transfer" – 7.8(A)(B)(C).

Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions, plan and conduct classroom, laboratory, and field investigations, engage in problem-solving to make connections across disciplines, and develop an understanding of science concepts.

- The materials include opportunities for students to ask questions. For example, each unit has an Anchoring Phenomenon, and students are encouraged to generate their own questions about the phenomenon. The materials provide sufficient opportunities for students to plan and conduct investigations and engage in problem-solving to develop an understanding of science concepts. Within EduSmart's self-scoring rubric, they claim to have four Engineering Design Challenges per grade level – one for each reporting category (Row 7, Column F). The updated materials now include a total of four Engineering Design Challenges for each grade level.

Materials provide multiple hands-on investigations in grade 7 materials that allow students to plan and conduct classroom, laboratory, and field investigations that make connections across disciplines and develop an understanding of science concepts.

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Indicator 2.2

Materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.

1	Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.	M
2	Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems.	M
3	Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.	M

Meets | Score 4/4

The materials partially meet the criteria for this indicator. Materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.

Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS. Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems. Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.

Evidence includes but is not limited to:

Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.

- Grade 7 materials provide anchoring phenomena for each of the standards. The anchoring phenomenon for TEKS 7.11(A) shows students a video about how human pollution can impact surface water. This phenomenon is also presented in the Instruction Module for TEKS 7.11(A), Watersheds. Additionally, this anchoring phenomenon ties into the simulation for TEKS 7.11(A), Nitrogen Levels in Water, in which students must conduct water quality tests to discover the source of nitrogen that is entering the ocean. Another example of how the anchoring phenomenon ties into other activities can be seen in the hands-on activity for TEKS 7.11(A), Human Influence on Watersheds Field Study, in which students build a watershed area and then pollute the area to see how what we put in our waterways and throw on our land will eventually make its way into the groundwater and surface water of a watershed.
- Materials use the anchoring phenomena as the engagement activity for the units. Students are able to ask questions. The units contain lessons that embed a problem for authentic applications for students that connect the SEPs and recurring themes. Materials use phenomena as an anchor to introduce students to grade-level content in each discipline (earth/space, life, physical

science). For example, in the grade 7 unit, Physical and Chemical Changes, the phenomenon is based on the question, “How does popcorn change its shape?” Students generate their own questions and have conversations about the process of popcorn changing shape. Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of SEPs, RTCs, and grade-level content as outlined in the TEKS. In the Instruction Module Companion for TEKS 7.13(A) Every Instructional Module has phenomena embedded within it to support students developing knowledge. The Instructional Modules present real-world scenarios in which students can solve problems through authentic application. The Instructional Module Companion aligns with the Instructional Module to help guide students through the rooted phenomena within the Instructional Module. The instructional module companion for TEKS 7.13(A), Immune System, supports students in developing knowledge through RTCs. Within the Instructional Module Companion (which is the correlating document for the Instructional Module for TEKS 7.13(A), students must use a graphic organizer to describe and explain the function of various structures that are part of the immune system. This graphic organizer supports RTC TEKS 7.5(D), 7.5(F), 7.5(G). The Instructional Module Companion also supports core content knowledge through the fillable note-taking guide that aligns with the content presented in the Instructional Module.

- Materials provide materials that use problem-solving through scientific and engineering practices with their Engineering Design Challenges. Materials provide opportunities for students to develop, evaluate, and revise their thinking as they figure out the phenomena, the phenomena anchors the learning and serves to drive the learning for the student to master the skills of that unit. For example, in grade 7, there are two Engineering Design Challenges, “The Solution to Dissolving Solids” and “There’s a Fungus Among Us!” Both of these activities provide students with a real-world problem, and students have specific guidelines and how to work for a solution to the problem using scientific and engineering practices.

Materials intentionally leverage students’ prior knowledge and experiences related to phenomena and engineering problems.

- Grade 7 materials provide an anchoring phenomenon for each standard to elicit student background knowledge and experiences, but these phenomena are not explicitly brought in during the other activities or components provided. Students experience the phenomenon through a short video or image; the units use the phenomena to build upon throughout the unit. The anchoring phenomena for TEKS 7.6(E), Dissolving Rocks, introduces the phenomenon of factors that affect the rate of dissolving. This experience is brought into the Instruction Module for TEKS 7.6(E), Factors Affecting Dissolving, in which students learn about solid solute that dissolves in water or how an aqueous solution is affected by temperature, surface area and degree of agitation in the aqueous solvent. This phenomenon is brought into the hands-on activities for TEKS 7.6(E), How Surface Area Affects the Rate of Dissolving, How Agitation Affects the Rate of Dissolving, and How Temperature Affects the Rate of Dissolving.
- The materials provide opportunities to leverage students’ prior knowledge and experiences related to phenomena and engineering problems. Materials provide a Vertical Alignment document that allows teachers to ensure connections are made to previous TEKS and allow teachers to build on concepts taught in previous years.
- Materials provide a Teacher Guide for each unit that includes a “Prerequisite Knowledge” and “Common Misconceptions.” These provide common misconceptions students may have from previous grade levels, along with possible explanations why students may have little background

knowledge about a concept. For example, each teacher unit guide provides potential misconceptions for teachers to be ready to address throughout instruction and learning experiences. These sections provide teachers with an idea of what knowledge and skills students should have from previous grade levels as well as what concepts they might struggle with in the unit. The teacher guide for TEKS 7.6(A)(B) provides the prerequisite knowledge students will have and also states that students will not have previous background knowledge of atoms from previous grade-level TEKS. The teacher guide for 7.11(A) provides multiple sentences for student prerequisite knowledge that states what students have learned in previous grades. The teacher guide for 7.12(A) explicitly states in the prerequisite knowledge that in grade 5, students learn about the cycling of matter in a food web as well as relevant vocabulary such as producers, carnivores, herbivores, and omnivores. The teacher guide for 7.13(D) states in the prerequisite knowledge that in grade 6, students learn about variations within populations and recognize if those variations are advantages or disadvantages. The prerequisite knowledge also states that students also learned how to recognize how traits are passed from one organism to the next.

Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.

- Grade 7 Teacher's Guide provides the teacher with student learning goals (as TEKS) along with essential questions for the unit. Materials provide an anchoring phenomena activity for each content standard. The standard is listed within the activity, which allows teachers to see the language behind the phenomena and the activity for students. It also provides guidance on how to convey the concept to students and make connections. "Explicit goal is given for the anchoring phenomenon for TEKS 7.7A. It states in the teacher document, "When fielding questions, do not explain speed or provide answers for any of the questions. Let students continue to ask questions and then come back and refer to this image when discussing speed. When questioning students, make sure that students understand that when investigating speed, they need both the distance and the time for the calculation. Both distance and time quantities can have errors depending on the precision and accuracy of the equipment that is being used. Speed = Distance/time" which serves as the goal for student understanding through the questioning process.
- The materials provide the teacher with information about the phenomenon by providing an overarching question for the phenomenon along with guiding questions for students to consider. The evidence to support this can be seen in the teacher document for the anchoring phenomenon 7.6(D) Aqueous Solutions, in which the scientific concept behind the phenomenon is addressed. "The video shows a soda machine dispensing carbonated water and flavorings to make carbonated drinks which are solutions."
- The materials clearly outline student learning goals behind each engineering problem. Students complete four Engineering Design Challenges throughout the school year, one for each reporting category. Each of these types of activities includes a goal for the student that is aligned to the phenomena and engineering problem. For example, in grade 7, an Engineering Design Challenge called "There's a Fungus Among Us!" The goal is to "brainstorm at least five additional products that could be produced using mycelium." The materials provide a "teacher edition" for each Engineering Design Challenge. The teacher edition includes specific TEKS, SEPs, and RTCs addressed in the challenge, directions to get students started, and a scoring rubric for assessing students on their science skills and content. For example, in grade 7 Engineering Design Challenge: The Solution to Dissolving Solids, students apply their knowledge of factors

affecting dissolving to design a new machine for Starbucks that will dissolve sugar in the most effective way.

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Indicator 3.1

Materials are designed to build knowledge systematically, coherently, and accurately.

1	Materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels.	M
2	Materials are intentionally sequenced to scaffold learning in a way that allows for increasingly deeper conceptual understanding.	M
3	Materials clearly and accurately present grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices.	M
4	Mastery requirements of the materials are within the boundaries of the main concepts of the grade level.	M

Meets | Score 6/6

The materials meet the criteria for this indicator. Materials are designed to build knowledge systematically, coherently, and accurately.

Materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels. Materials are intentionally sequenced to scaffold learning in a way that allows for increasingly deeper conceptual understanding. Materials clearly and accurately present grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices. Mastery requirements of the materials are within the boundaries of the main concepts of the grade level.

Evidence includes but is not limited to:

Materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels.

- Grade 7 materials provide a Vertical Alignment document in the teacher resources that shows how the standards are aligned in grades 6, 7, 8, and Biology. The document shows the connection between new learning goals to previous and future learning across multiple grade levels. The Vertical Alignment document also demonstrates how the content builds in complexity across grade levels using the TEKS. Furthermore, the document visualizes how the standards build upon each other across grade levels, including the Scientific and Engineering Practices and the Recurring Themes and Concepts standards.
- Grade 7 materials provide a Unit Teacher Guide that contains background information and Prerequisite knowledge: 7.6C Physical and Chemical Changes Unit Teacher Guide (Prerequisite Knowledge) states that "students learned how to identify the formation of a new substance by using the evidence of a possible chemical change, including production of a gas, change in thermal energy, production of a precipitate, and color change in grade 6." In another example, 7.6AB, students in prior grades learned to identify elements as metals, nonmetals, or metalloids on the periodic table. Then students will compare elements and compounds based on atoms and molecules.
- Materials are organized using the 5E model of instruction, which naturally lends to content being presented in a way that builds on the complexity within the unit. The content library

provides opportunities for students to build their knowledge within units and is organized by reporting category and standard. For example, in grade 7, there are activities designed for students to build knowledge around standard 7.13A – "identify and model the main functions of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, urinary, reproductive, integumentary, nervous, immune, and endocrine systems." These activities help continue to build the foundation for Biology Standard B.12A – "analyze the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals."

Materials are intentionally sequenced to scaffold learning in a way that allows for increasingly deeper conceptual understanding.

- According to the Implementation Strategies document in each unit, grade 7 materials can be sequenced in a way that activates and builds on prior knowledge, beginning with the anchoring phenomenon to the instructional modules, quizzes, interactivities, and suggested stations and differentiation activities. Furthermore, in the Unit Teacher Guide for each module, teachers are given a series of essential questions to guide students' learning. These questions are sequenced to build upon the learning for students throughout the unit. In 7.10AB, students are asked first to describe evidence to show how the Earth changed over time. Students must next understand plate tectonics and how it contributes to the formation of ocean basins and the occurrence of earthquakes.
- Materials in the unit are sequenced to scaffold the learning for students. For example, in the grade 7 unit Cells to Organisms, students explore levels of organization by completing an activity to visualize the importance of organization; students take notes (explain) on the levels of organization in multicellular organisms; and finally, students elaborate by placing five structures from plants and animals in order from the simplest to the most complex to show levels of organization in living things.
- Materials are sequenced in a way that activates or builds prior knowledge before explicit teaching occurs. All of the units begin with a phenomenon to engage students in the learning, followed by a hands-on or virtual activity to allow students to explore the content prior to explicit instruction on the TEKS. When using the instructional module companion, the students are able to follow along with the module and take notes, and have a graphic organizer and writing prompt/journal activity to "ensure student content mastery." For example, in grade 7, in the unit called "Physical and Chemical changes'', students experience lessons that connect and scaffold content knowledge, starting with an anchoring phenomenon activity that introduces students to the phenomenon of the unit, then progressing towards a hands-on activity that allows students to experience why a cake rises, and then into direct teach opportunities with the Instructional Module that allows students to distinguish between physical and chemical changes in matter.

Materials clearly and accurately present grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices.

- Grade 7 Scope and Sequence provides suggested RTCs and SEPs to align to each unit and identifies suggestions of which specific practice and theme to embed within each unit. The Scope and Sequence at each grade level presents all grade-level core concepts, recurring themes and concepts, and science and engineering practices.

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- EduSmart provides materials that are aligned with the content standards, and their material is organized by category and further broken down into units of the grade level standards. Note that the recurring themes and concepts and science and engineering standards are not incorporated into the unit activities; they have their own separate categories.
- EduSmart Quizzes found in assessments are available for every core category standard. The quizzes assess student mastery of the core concepts within the course through multiple-choice questions.
- 5E (Engage, Explore, Explain, Elaborate, Evaluate) model section for sequencing science instruction for each category standard and unit. Materials clearly and accurately present core concepts and science and engineering practices, as evidenced by a hands-on lab investigation.

Mastery requirements of materials are within the boundaries of the main concepts of the grade level.

- Materials provide a Scope and Sequence at each grade level to create boundaries of the main concepts of the grade level. For example, in the Scope and Sequence document, vocabulary words are listed and show which words were previously taught and which ones are new for that unit and grade level.
- Grade 7 materials provide the main concepts that the students must master for the grade level. For example, 7.13B – Cells to Organisms Teacher Guide provides the teacher with prerequisite knowledge, stating, "Prior to this year, students will have begun to explore the smaller world that makes up organisms by exploring cell theory. Students will have identified and compared the basic characteristics of organisms, including prokaryotic and eukaryotic, unicellular and multicellular, and autotrophic and heterotrophic. These topics will have built students' familiarity with the concept of cells and how organisms function."
- EduSmart provides a Unit Teacher Guide that states the content that students must master within the Background Information and Prerequisite Knowledge sections of the document. For example, in grade 7, for standard 7.13A – "identify and model the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, urinary, reproductive, integumentary, nervous, immune, and endocrine systems," the Prerequisite Knowledge section provides what students should have learned from previous grades.
- EduSmart Quizzes found in assessments are available for every core category standard. The quizzes assess student mastery of the core concepts within the course through multiple-choice questions.

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Indicator 3.2

Materials provide educative components to support teachers' content and knowledge coherence.

1	Materials support teachers in understanding the horizontal and vertical alignment guiding the development of grade-level content, recurring themes and concepts, and scientific and engineering practices.	M
2	Materials contain explanations and examples of science concepts, including grade-level misconceptions to support the teacher's subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS.	M
3	Materials explain the intent and purpose of the instructional design of the program.	M

Meets | Score 6/6

The materials meet the criteria for this indicator. Materials provide educative components to support teachers' content and knowledge coherence.

Materials support teachers in understanding the horizontal and vertical alignment guiding the development of grade-level content, recurring themes and concepts, and scientific and engineering practices. Materials contain explanations and examples of science concepts, including grade-level misconceptions to support the teacher's subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS. Materials explain the intent and purpose of the instructional design of the program.

Evidence includes but is not limited to:

Materials support teachers in understanding the horizontal and vertical alignment guiding the development of grade-level content, recurring themes and concepts, and scientific and engineering practices.

- Grade 7 materials provide a Vertical Alignment document that shows how grades 6–8 and Biology standards are aligned. The materials also provide an Implementation Strategies document. The materials include a Unit Teacher Guide that provides prerequisite knowledge of what students have learned prior to that grade level. The materials also provide a Scope and Sequence at each grade level to support teachers in understanding the horizontal alignment across the grade-level content, recurring themes and concepts, and science and engineering practices. The vertical alignment document for teachers to see prior as well as future grade-level standards.
- Materials provide clear and easy-to-follow guidance and support for teachers within the content unit documents. The activities are aligned with content standards and grade-level content. EduSmart provides a Unit Teacher Guide for each unit.
- The Scope and Sequence provide teachers with a horizontal and vertical alignment of the grade-level TEKS with the embedded connection of the recurring themes and science and engineering practices. The embedded connection is placed within each unit of study, thus highlighting clear connections for educators to use. The curriculum builds coherently across lessons and units, increasing in complexity throughout the year. The Scope and Sequence document also includes

unit TEKS, essential questions, and possible activities that support teachers in understanding the alignment of grade-level content.

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Materials contain explanations and examples of science concepts, including grade-level misconceptions to support the teacher's subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS.

- Grade 7 materials provide a Unit Teacher Guide in every grade level that includes background knowledge, prerequisite knowledge, misconceptions, a list of Essential Questions and their answers, and examples of science concepts. This includes prerequisite knowledge of what students have learned prior to that grade level. The document includes a section on common student misconceptions that may become barriers to concept development. Materials do not include support for teachers to develop their own understanding of more advanced grade-level concepts.
- The Unit Teacher Guide for each student's expectation provides background information, prerequisite knowledge, essential questions, and common misconceptions for each concept. Teachers can locate background knowledge for each standard, which includes overviews of the scientific content learned and the overall goal of the standard to support teacher content knowledge. For example, the Grade 7 Unit Teacher Guide for standard 7.7AC states, “In this unit, students will begin to look at force, motion, and speed as a mathematician. Students will be expected to conduct investigations in which they calculate an average speed of an object using distance and time. To calculate the average speed using distance and time measurements, you can use the formula: Average speed = distance ÷ time. Students will also be expected to measure, record, and interpret an object’s motion using distance-time graphs. …”
- Teachers can locate common misconceptions for each standard in the correlating Unit Teacher Guide. This information provides teachers with common grade-level misconceptions that are barriers to students' conceptual development. For example, the Grade 7 Unit Teacher Guide for standard 7.7AC provides common misconceptions, including but not limited to, “1) An object's speed is constant throughout its entire journey. In reality, an object's speed can vary depending on various factors, such as changes in direction, acceleration, or deceleration. Therefore, it is important to emphasize that the average speed is the total distance traveled divided by the total time taken and that this may not be the same as the speed at any given moment during the journey. They may also make this mistake about constant speed while reading the time-distance graph.”

Materials explain the intent and purpose of the instructional design of the program.

- EduSmart provides an Implementation Strategies guide that explains the intent of the various activities. EduSmart provides a Unit Teacher Guide for each unit, the various components of the units, and the purposes for each component. It gives an expected timeframe for each as well as the intended outcome for students and guidance for teachers in using that specific component of the unit but does not provide a framework that explains the goals of the program. Materials are designed in the 5E lesson format that provides an evidence-based design framework for instruction.
- Materials provide a Letter to Caregivers to introduce families to EduSmart science curriculum, which describes EduSmart’s instructional design as “to provide an engaging, interactive way for

your children to explore science topics and develop a deeper understanding of scientific concepts." The letter continues to describe how families can support learning about science from home and the additional support materials that can be found in EduSmart to help students be successful, like "vocabulary practice, online digital labs, and interactive games."

EduSmart Science Grade 7

Indicator 4.1

Materials provide opportunities for students to engage in productive struggle through sensemaking that involves reading, writing, thinking, and acting as scientists and engineers.

1	Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers.	M
2	Materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop an understanding of concepts.	M
3	Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts.	M
4	Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. Materials provide opportunities for students to engage in productive struggle through sensemaking that involves reading, writing, thinking, and acting as scientists and engineers.

Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers. Materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop an understanding of concepts. Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts. Furthermore, Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle.

Evidence includes but is not limited to:

Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers.

- According to the grade 7 Implementation Guide, materials provide WordExplorer activities to practice vocabulary, journal prompts that integrate writing, and readers that provide "high-quality high interest leveled readers that connect the TEKS to a real-world scenario or problem."
- Materials provide opportunities for students to read and write throughout the modules. Through leveled readers and journal writing, students can engage in sensemaking to make connections with the content. EduSmart also provides students the opportunity through the use of phenomena and hands-on activities to explore activities to ask and answer questions as they engage in the content.
- Many EduSmart units provide a Journal Prompt activity "to foster critical thinking skills and the ability to express ideas clearly." Journal Prompts provide a "range of depth knowledge and require students to delve deeper into scientific concepts and provide explanations that

showcase their understanding." Educators are encouraged to use the Journal Prompt as exit tickets, quick writes, or short-constructed responses to check on student understanding of the scientific concepts. Furthermore, many EduSmart units provide an activity called Readers, which provides “a real world-scenario or problem.” The Reader is available in at least two Lexile levels to allow for easy differentiation for students. The Reader provides engaging content to help students gather evidence and develop an understanding of scientific concepts. Each Reader also includes a five-question comprehension check which includes three multiple-choice, one text entry, and one short-constructed response question.

- Materials provide support for students to make sense of their learning. One of the ways that materials provide this opportunity is through its Engineering and Design Challenges. For example, grade 7 students have four different opportunities to design solutions to real-life problems. Furthermore, materials provide activities that allow students to make sense of their learning of phenomena and concepts. For example, in grade 7, standard 7.78(A)(B)(C) has a hands-on activity called "Comparing Solar Ovens," where students have to design a comparative investigation to help them understand solar energy conversion into heat energy.

Materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop an understanding of concepts.

- Grade 7 materials provide "high-quality, high interest-leveled readers that connect the TEKS to a real-world scenario or problem."
- Grade 7 materials provide WordExplorer activities to practice vocabulary, journal prompts that integrate writing, and graphic organizers in the Instructional Module Companions.
- Materials provide opportunities for students to use grade-level appropriate texts through the use of leveled readers. For example, in 7.7AC, the Speed, Distance, and Time module has four different readers for both students approaching grade level and those that are at grade level. Questions to assess learning accompany the texts.
- In the Instructional module, materials provide an accompanying Instructional module companion that allows students to gather evidence to scaffold their learning of the concepts as they review the information in the instructional module.
- Many EduSmart units provide a digital vocabulary activity called WordExplorer, which includes “multi-part vocabulary practice … towards mastery of all vocabulary related to a topic.” Students engage with the vocabulary words by identifying images that relate to the words, reading textual facts and choosing the correct statements, and filling in the blanks with the correct word to complete the statement.
- Many EduSmart units provide a Reader activity, which is available at multiple reading levels. The Reader provides engaging content to help students gather evidence and develop an understanding of scientific concepts. Each Reader also includes a five-question comprehension check which includes three multiple-choice, one text entry, and one short-constructed response question.
- Materials provide approaching and grade-level appropriate texts that engage students to help them gather evidence and develop an understanding of concepts. For example, in the grade 7 reporting category, Organisms and Environment, a Reader is available for standards 7.13A and 7.13C. Materials provide both approaching and grade-level-appropriate texts that help students understand the scientific phenomena they are learning within the instructional units. EduSmart also provides opportunities within reporting categories for vocabulary using WordExplorers. For example, in grade 7, under the reporting category Matter and Energy, 7.6(A)(B) has a WordExplorer activity to engage with vocabulary.

EduSmart Science Grade 7

Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts.

- Grade 7 Instructional Module and Instructional Module Companion provide students an opportunity to take notes while watching a lesson, use a graphic organizer to make connections, and end with a journal prompt to explain their thinking/understanding about a concept. Grade 6 materials also provide opportunities for students to communicate thinking through conducting hands-on investigations and discussions about the anchoring phenomenon.
- EduSmart does provide various communication modes to support students' understanding of scientific concepts. For example, 7.12B – Cycling of Matter has a journal option in which students will respond to open-ended questions related to the instructional module components. Within the 7.12B – Cycling of Matter module in the explore section, students will interact with the content by completing an interactive activity on “Garbage to Garden” and a simulation on “The Green Machine.”
- EduSmart materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts. For example, in 7.10AB, Evidence that Supports Plate Tectonics Theory activity, students use the information provided to create a timeline that describes the historical development of evidence that supports the plate tectonics theory.
- Materials provide many journal opportunities for students to respond to after an instructional module, helping to deepen their understanding of scientific concepts through written communication. For example, in grade 7, students can journal in three different ways about elements and compounds after viewing an instructional module.
- Materials provide hands-on activities with several questions for students to answer in an open-ended format. This helps students understand the hands-on activity they perform over concepts they are learning within instructional units. Furthermore, materials provide multiple opportunities for students to engage in graphic modes of communication to support their understanding of concepts they are learning in science. Each reporting category contains an Engineering and Design Challenge that allows students to design, create, or come up with a solution to real-life problems that connect to the concepts they learn within the instructional units. This allows students to write, draw, model, create prototypes, and other various modes of displaying their knowledge of scientific phenomena.

Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle.

- Grade 7 activities provide opportunities for students to construct explanations of how and why various phenomena or problems occur. Grade 7 Engineering and Design Challenges "leverage students' prior knowledge and provide an opportunity for students to collaborate in designing solutions to authentic real-world problems."
- EduSmart provides four engineering design challenges to support students acting as engineers to make sense of scientific concepts. Each grade level includes four engineering design challenges, along with at least 15 hands-on activities that provide authentic student engagement to productively struggle and build science knowledge of the world around them. The materials also support students to act as scientists and engineers who can learn from engaging in phenomena-based instruction.

EduSmart Science Grade 7

- EduSmart uses real-world phenomena to begin each unit and engage students in the learning process. The phenomena are referred back to during the Instruction Modules so students can review their previous ideas and make adjustments based on their new knowledge.

EduSmart Science Grade 7

Indicator 5.1

Materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.

1	Materials prompt students to use evidence to support their hypotheses and claims.	M
2	Materials include embedded opportunities to develop and utilize scientific vocabulary in context.	M
3	Materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level.	M
4	Materials provide opportunities for students to construct and present developmentally appropriate written and verbal arguments that justify explanations to phenomena and/or solutions to problems using evidence acquired from learning experiences.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. Materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.

Materials prompt students to use evidence to support their hypotheses and claims. Materials include embedded opportunities to develop and utilize scientific vocabulary in context. Materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level. Furthermore, materials provide opportunities for students to construct and present developmentally appropriate written and verbal arguments that justify explanations to phenomena and/or solutions to problems using evidence acquired from learning experiences.

Evidence includes but is not limited to:

Materials prompt students to use evidence to support their hypotheses and claims.

- Grade 7 materials include a Claim, Evidence, and Reasoning activity for students to complete when conducting simulations. During the simulation, the students collect data and evidence to support their claims. There are a total of 5 simulation activities for the course: 7.8ABC in Force and Motion, 7.10AB and 7.11A in Earth and Space, and 7.12B, 7.13D in Organisms and Environment. Grade 7 materials include hands-on activities for each of the components/TEKS. These activities require students to use the evidence/data they gather to support their hypothesis.
- In the Explore activity section of the 5E lesson, materials prompt students to use evidence to support their claims. For example, in the 7.8ABC Heat Conduction activity reflection question, students are to use their observations from the activity and determine what evidence showed that heat energy was moving from particle to particle through the substance. They need to be prepared to share their reasoning with the class. In 7.8ABC Thermal Energy Transfer, Heat Flow Reader, students are asked, "During winter do we wear coats or jackets? How do coats or jackets keep us warm? Use evidence from the text to support your answer."
- Materials prompt students to use evidence to support their hypotheses and claims. For example, in the 7.6E hands-on activity "How Temperature Affects the Rate of Dissolving,"

students gather evidence during an investigation to determine the impact of temperature on the rate of dissolving. The student worksheet includes a one-page organizer to help students with the Claim, Evidence, and Reasoning writing model, which requires students to include evidence and an explanation for their answer to the question. Furthermore, materials prompt students to use evidence to support their hypotheses and claims. For example, in 7.13D Journal 1 - “Natural Selection and Breeding,” students use their knowledge from the Instructional Module to predict what would happen to a woodpecker population based on the given scenario.

- Materials provide Journal activities that allow students to support their claims or answers to questions with evidence and reasoning. For example, in a grade 7 journal activity for Heat Transfer, the students are given a picture of a thermos flask that shows how it is constructed, and students must answer the question, "How does each of its parts help to keep the coffee hot?"

Materials include embedded opportunities to develop and utilize scientific vocabulary in context.

- Teachers can preview the vocabulary using a WordExplorer, and then have students read through a Reader activity and provide context to the vocabulary terms they are learning for the concept. For example, in grade 7, a reader defines speed that allows students to learn the vocabulary word "speed" in context.
- The Instructional Module Companion (IMC), such as 7.7BD, includes a notetaking guide that has word banks for students to use the vocabulary in content, as well as a graphic organizer to re-emphasize the content, in this case using another word bank to describe the pictures for Newton's first law of motion. According to the Implementation Guide, the WordExplorer activities use scientific terms from the IM. This is a flash-card-type activity that uses text, audio, and visual descriptions to help students understand and retain the words and their meaning. Materials contain a word explorer activity. Specifically, 7.7BD, and the 7.8ABC Word Explorer, and contains words related to the content. The words that are listed for 7.8ABC Heat Transfer are ecosystem, abiotic, biotic, community, unicellular, biome, biosphere, and desertification.
- Materials include embedded opportunities to develop and utilize scientific vocabulary in context. Each unit includes a note-taking guide as part of the IM Companion, which allows students to practice identifying science vocabulary in the context of the scientific content. Following the fill in the blank note-taking guide, students complete a graphic organizer, which allows them additional practice with the unit-specific vocabulary. Units include an activity called WordExplorer, which is a “multi-part vocabulary practice for low-risk, high-engagement practice towards mastery of all vocabulary related to a topic.” Students will develop their science vocabulary by 1) matching images to the vocab words, 2) reading facts about the words and matching all that apply, and 3) dragging and dropping the appropriate word to complete the statement. Materials provide at least one WordExplorer activity in each reporting category.
- Materials provide opportunities for students to develop and utilize scientific vocabulary in context. Their WordExplorer activities allow students to "practice for low-risk, high-engagement practice towards mastery of all vocabulary related to a topic." Part one of the activity allows students to choose all the correct images related to a word. Part two of the activity allows students to read textual facts and choose correct statements that relate to the vocabulary word. Part three utilizes a close activity "where students drag and drop appropriate words to complete a statement that represents the correct application of the vocabulary."
- Materials also provides materials that have embedded opportunities that allow students to develop and utilize scientific vocabulary in context with their Instructional Modules and Instructional Module Companions. Students fill in notes that utilize vocabulary in context to the

lesson and topic being taught within the Instructional Module. They also must fill in a graphic organizer that provides visual learning of the concept or topic that utilizes scientific vocabulary. Students also have the opportunity to practice using vocabulary terms by answering a journal prompt that summarizes their understanding of concepts. Teachers would need to use the Scope and Sequence document in order to make sure they are explicit with the vocabulary terms used within this activity.

-

Materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level.

- Materials include opportunities for argumentation and discourse, such as that prompted in the Anchoring Phenomena activities. The teachers are instructed to allow students to discuss and only guide the conversation by prompting questions when they are stuck. When using the IM and a question is asked, the video pauses to allow for discussion (whole group, small group, or partners).
- Hands-on activities have sections called "Initial Argument" and "Argumentation Session" that have students develop their initial argument and then allow all groups to share their arguments through discourse. Students must listen to other groups and critique others' arguments. Furthermore, materials provide instruction that integrates argumentation and discourse to support students' development of content knowledge with their Engineering and Design Challenges. Students who engage in Engineering and Design Challenges design various prototypes, models, presentations, etc., to solve a real-world problem or situation. They frequently obtain feedback along the way and, in the final presentation, must present their completed task through argument and discourse.
- Materials integrate opportunities for students to engage in argumentation and discourse. An example of one argumentation opportunity is in 7.4A Current Research Social Media in Classroom, in which students as a class must discuss the positive and negative effects of social media and decide if the changes in the use of social media are beneficial or harmful to middle schoolers. They must be able to support their argument with evidence from their research. In 7.6E EDC, The Solution to Dissolving Solids, students will design a blueprint of a new machine that dissolves solids as quickly and efficiently as possible. Students engage in argumentation as they explain their design and try to inform and persuade them that their design solution is the best.
- Materials integrate argumentation and discourses throughout to support students' development of content knowledge and skills. For example, each unit starts with an Anchoring Phenomena to encourage discourse among the class as they try to make sense of the science concepts they are viewing in the video or image. In 7.6C Physical and Chemical Changes, students watch a short video clip of popcorn popping. After the clip, students discuss, "How does popcorn change its shape?" For example, part of the Engineering Design Challenge process is for groups to share their design with the class, defend their design choices when needed, and receive feedback on those design choices. This process allows students to practice defending their design choices with science concepts and implement the feedback to make adjustments or improvements to their overall design prior to grading.

EduSmart Science Grade 7

Materials provide opportunities for students to construct and present developmentally appropriate written and verbal arguments that justify explanations to phenomena and/or solutions to problems using evidence acquired from learning experiences.

- The materials include journal prompts that require students to construct a written explanation or argument. Within the argument, they need to supply sufficient evidence to support their claim/argument/explanation. The materials include opportunities for argumentation and discourse, such as that prompted in the Anchoring Phenomena activities. The teachers are instructed to allow students to discuss and only guide the conversation by prompting questions when they are stuck.
- For example, in the 7.13D “Journal 2 - Natural Selection and Breeding," students use their knowledge of natural selection to explain why the beaks of the Galapagos Islands finches changed over multiple generations. Additionally, materials provide opportunities for students to construct and present developmentally appropriate written and/or verbal arguments that justify explanations to solutions to problems using evidence from learning experiences. For example, part of the Engineering Design Challenge process is for groups to share their design with the class, receive feedback on the design, defend their design choices when needed, and make possible adjustments/improvements prior to their final submission.
- Materials provide instruction that gives students opportunities to construct and present written and verbal arguments that allow them to justify explanations of phenomena and solutions to problems using evidence from what they learned about the concept or topic. Hands-on activities have CER frameworks that allow students to make a claim to a guiding question and present evidence and reasoning for their claim based on the hands-on experience and knowledge obtained about the phenomena or topic. Furthermore, materials provide instruction that gives students opportunities to construct and present written and verbal arguments that allow them to justify explanations of phenomena and solutions to problems using evidence from what they learned about the concept or topic. The Engineering and Design Challenges allow students to design a solution to a real-world problem based on the experience and knowledge obtained about the phenomena or topic. The challenges give students the opportunity to experience the engineering and design process, which includes research, imagining solutions, planning, creating, testing, improving based on feedback, and communicating their results to peers.

EduSmart Science Grade 7

Indicator 5.2

Materials provide teacher guidance to support student reasoning and communication skills.

1	Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking.	M
2	Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context.	PM
3	Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims.	PM
4	Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.	M

Partial Meets | Score 2/4

The materials partially meet the criteria for this indicator. Materials provide some teacher guidance to support student reasoning and communication skills.

Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. Materials include some teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context. Materials provide some teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims. Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.

Evidence includes but is not limited to:

Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking.

- The EduSmart Materials provide teacher guides for each unit that incorporate essential questions with answers that can be used to deepen student thinking. An example would be with the 7.6C Physical and Chemical changes unit in which several essential questions are provided: How do you know when a chemical change has occurred? How are the properties of matter affected by physical changes? How are they affected by chemical changes? In the hands-on activity, Materials provide questions for students to connect and guide their thinking as they complete the hands-on investigation activity. For example, with the 7.6C Physical and Chemical changes student investigation hands-on activity, there are student analysis questions provided at the end of the investigation that will connect and deepen student thinking.
- The Unit Teacher Guide provides suggestions for anticipating student responses and the use of questioning to deepen student thinking. Each unit has a Unit Teacher Guide, which provides common misconceptions to help prepare teachers for possible wrong answers. Each Unit Teacher Guide also includes four or five essential questions to be used throughout the unit to help the teacher gauge students' depth of knowledge of the content. Materials provide teacher guidance on anticipating students' responses by providing possible student responses in the teacher edition of materials activities.

- Materials provide a Unit Teacher Guide that has a Common Misconceptions section. The teacher would use these guides to help with all activities.
- The materials provide a Unit Teacher Guide that has an Essential Questions section that allows the teacher to use questions to deepen students' thinking. For example, in 7th grade, for standards 7.8A, B, and C, the Unit Teacher Guide Essential Questions include: "What are the three methods of thermal energy transfer, and how do they differ from each other? What is thermal equilibrium, and how does it relate to the movement of thermal energy in a system?

Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context.

- The Scope and Sequence provides a list of words but no support for the development of use in context or how to scaffold student vocabulary development.
- The Materials provide a Scope and Sequence that gives a list of vocabulary targeted for that unit. It also provides a unit teacher's guide that gives a formal definition of the essential vocabulary that will be incorporated within that unit, but it and additional supports can be found in the ELPS Strategies Guide. For example, the ELPS Strategy Guide suggests teachers pre-teach vocabulary, provide word banks or keyword lists, and include sentence stems and starters.
- EduSmart provides a Scope and Sequence that identifies new grade-level words. These words appear in some activities throughout the specified unit. For example, the unit for Aqueous Solutions, TEKS 7.6(D), identifies the new to grade level words as aqueous solutions, concentrated solution, and distilled solution. The teacher document provides essential questions and explanations that specifically mention aqueous solutions, dilutes, and concentrated solutions.This guidance provides teachers with the background knowledge in regards to these scientific words, but not how to scaffold and support students in using them in context. The WordExplorer is cited in the Implementation Guide as the main activity to use for vocabulary practice. EduSmsart has provided a WordExplorer activity for each unit of study.
- Materials provide a Scope and Sequence that lists vocabulary terms by unit into "new grade level words'' and "words with prior knowledge" but does not provide guidance on how to scaffold or support student's development and use of scientific vocabulary in context as materials cited in their rubric. This document only provides what vocabulary a student should have been previously exposed to, not how to scaffold or support. Their Implementation Guide for the Scope and Sequence states: "Unit vocabulary that will be addressed during a specific content unit," which suggests the vocabulary is listed, but there is no evidence that it is scaffolded In any way.
- Materials provide an Implementation Guide that provides some guidance on the use of scientific vocabulary in context. It is limited to the WordExplorer activity, which is limited to certain standards. The WordExplorer is cited in the Implementation Guide as the main activity to use for vocabulary practice. EduSmsart has provided a WordExplorer activity for each unit of study.

Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims.

- In each of the 4 (for the entire course) Engineering Design Challenges, there are discussion questions and analysis questions; however, the materials do not provide materials to support students to use evidence to support claims. EduSmart simulation activities include documents that enable students to use Claim, Evidence, and Reasoning to construct a written response.

EduSmart Science Grade 7

- EduSmart provides short modules for the start of the year to introduce Science and Engineering Practices and Recurring Themes and Concepts. One of the SEP modules includes an activity titled "Making Informed Decisions: Conspiracy Theories" and provides an activity that emphasizes the need for students to evaluate their claim with a variety of appropriate sources to evaluate the credibility, accuracy, cost-effectiveness, and methods used to determine their question's answer. The practice of using appropriate and quality resources is not revisited throughout the implementation of science practices.
- Materials provide Anchoring Phenomenon activities that provide teacher guidance on preparing for student discourse. However, these activities do not support using evidence to construct a written or verbal claim as materials cited in their rubric. EduSmart provides short modules for the start of the year to introduce Science and Engineering Practices. One of the SEP modules emphasizes that observations made during comparative investigations often lead to more investigation questions. While the skill is taught at the beginning of the year, EduSmart materials do not emphasize or provide reminders for teachers or students to spiral these skills throughout all units.
- Materials provide Engineering and Design Challenges that have a teacher version that gives some guidance on preparing student discourse and using evidence to construct written or verbal claims. For example, in a 7th grade teacher version of an Engineering and Design Challenge, there is a discussion session that states, "Before their models are presented, each group will present their designs to other engineering teams for feedback and critique. Each group will need to explain to the others how their design works and why it is effective. They should inform and persuade the audience that their design will protect the watershed and community from contamination." This gives the teacher an idea of what students should be doing but doesn't necessarily provide support and guidance for the teacher to help students prepare for student discourse or use evidence to construct a written or verbal claim.

Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.

- The materials provide an anchoring phenomenon activity that gives teachers background information to explain the phenomenon and sample question prompts to help scaffold student questioning. The SEPs activities provide teachers with background information, instructions, and reflection questions to facilitate students' questioning and finding a solution to the problem within the activity.
- Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions. For example, each unit starts with an Anchoring Phenomenon to provide a foundational and shared experience for the class to reference and apply their knowledge to throughout the unit. Students view, discuss, and share their own questions about the phenomenon. The Anchoring Phenomenon teacher document provides an explanation of the question to help guide students as they continue to discuss and formulate their own questions but reminds the teacher not to share the answer. "Teachers can refer back to the phenomenon periodically to revisit and reinforce core concepts and ideas throughout the unit, connecting new information and skills to previously learned material to strengthen understanding and promote long-term retention."
- Materials provide Engineering and Design Challenges that support and guide teachers in facilitating students' thinking and finding solutions. The Engineering Design Challenges include teacher versions that provide background information, a design analysis section that has probing questions for students, and product discussion that allows students to share their

thinking with others, get feedback, and explain and receive critiques of their design. For example, in a 7th-grade Engineering and Design Challenge called "AquaGuard Engineering '', the Discussion section of the activity guides teachers, "Before their models are presented, each group will present their designs to other engineering teams for feedback and critique. Each group will need to explain to the others how their design works and why it is effective. They should inform and persuade the audience that their design will protect the watershed and community from contamination."

EduSmart Science Grade 7

Indicator 6.1

Materials include a variety of TEKS-aligned and developmentally appropriate assessment tools.

1	Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats.	M
2	Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment.	PM
3	Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts.	M
4	Materials include assessments that require students to apply knowledge and skills to novel contexts.	M

Partial Meets | Score 1/2

The materials partially meet the criteria for this indicator. Some materials include a variety of TEKS-aligned and developmentally appropriate assessment tools.

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats. Some materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment and some materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts. Materials include assessments that require students to apply knowledge and skills to novel contexts.

Evidence includes but is not limited to:

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats.

- The materials provide Interactivities that assess student knowledge via games or activities The teacher can use them to assess the content they may need extra help with. The materials also provide quizzes that are formatted similarly to STAAR and are developmentally appropriate based on the standard(s).
- The Interactives are formatted in a variety of ways that engage students and test their knowledge of concepts in a gamified format. Students are able to receive immediate feedback on their responses. Materials also provide a formative assessment 5-question quiz that is formatted in STAAR-like questions for each unit. The quiz can be used to assess student learning of concepts
- Materials include informal and formative assessments in a variety of formats to assess student learning and determine the next steps. For example, Journal Prompts can be used as an informal “exit ticket” or more formal written journal entry to assess and gauge student learning. Each TEK includes at least one journal prompt that can be found at the end of the Instructional Module Companion (IMC). In 7th grade, the curriculum includes an additional 27 separate journal prompts that can be used. Additionally, materials include formative assessments in a variety of formats to assess student learning and determine the next steps. The 7th-grade curriculum

includes 13 (out of 20) science content-specific Reader activities that could be used as a formative assessment. At the end of each Reader, students answer five questions: three STAAR-like multiple choice, one text entry, and a short constructed response.

- The interactives provided by EduSmart include a formative assessment that provides an informal opportunity to assess student learning. The Interactives allow students to engage with "STAAR-like item types such as drag and drop, text-entry, hot spot, and multi-select. The Interactivity is a gamified version of the standard that allows students to engage with content related to a real-world scenario. Students receive immediate feedback on their progress and can attempt the interactivity multiple times. The interactivity can be used as a review activity before an assessment, as a formal assessment, or as a small group activity. It can be assigned individually or whole group as well."
- EduSmart provides review opportunities for students, which provides students an informal opportunity to assess their learning."The student review is a condensed version of the instruction module that highlights the most important concepts for review. The student reviews also feature integrated questions throughout the video review that students must answer before they can continue with the video. Students are given immediate feedback and are able to repeat this activity as needed for mastery or for review."

Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment.

- EduSmart combines TEKS in some units. As a result, not all of the TEKS are assessed. For example, TEKS 7.9AB Quiz includes five questions to assess 7.9A but no questions to assess 7.9B.
- Materials assess some, but not all, student expectations. In the digital quiz, student expectations (TEKS) are identified for each question; however, the same indicators are not available in the print version or for reference in the teacher answer key.
- EduSmart materials are organized by individual TEKS, with a few at each grade level that are combined, like 7.9A and 7.9B. Due to the organization of the digital curriculum, each activity is TEK-specific, and the Engineering Design Challenges identify SEPs and RTCs that they incorporate as well.
- EduSmart provides quizzes that assess some, not all, student expectations and indicates which student expectations are being assessed for each question in the digital quiz for the teacher to view.

Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts.

- The Engineering Design Challenges explicitly label the Science and Engineering Practices (SEPs) with the Recurring Themes and Concepts (RTCs). in the activities. The materials include activities that integrate SEPs with the RTCs.
- EduSmart's readers include assessments that require students to apply knowledge and skills to novel contexts by connecting the standard to a real-world scenario and using a 5-question assessment that requires the student to apply their knowledge to a novel context. An example is 7.13A reader, in which students apply their knowledge of the integumentary system to the importance of sunscreen. EduSmart incorporates one example of each of the themes. For example, the reader contains assessment questions specifically designed to focus on that theme for that specific content.

- Materials include activities that integrate scientific concepts and SEPs with STCs. For example, the materials say, "... the science investigation activities are virtual lab simulations that incorporate recurring themes and concepts with science and engineering practices." Each grade level includes four Engineering Design Challenges that require students to apply science content with engineering practices and recurring themes and concepts. The corresponding SEPs and RTCs can be located in the Teacher Edition of the Engineering Design Challenge. Additionally, materials include assessments that integrate science concepts and science and engineering practices with recurring themes and concepts. Each grade level includes four Engineering Design Challenges that require students to apply science content with engineering practices and recurring themes and concepts. The corresponding SEPs and RTCs can be located in the Teacher Edition of the Engineering Design Challenge.
- EduSmart provides Engineering and Design Challenges provide a rubric to be used as an assessment of their product that assesses these standards. For example, in the rubric for a 7th-grade Engineering and Design Challenge called "The Solution to Dissolving Solids", the rubric includes criteria for Design (standards 7.1A, 7.2B, 7.1G), presentation (7.2D, 7.3B, 7.3C), blueprint (7.1G, 7.5C), and experimental design (7.1E, 7.2B, 7.2C, and 7.5A).
- EduSmart provides Journal activities that give open-ended questions and opportunities for students to explain their reasoning. Within these journal prompts, the science and engineering practices as well as recurring themes and concepts, are embedded. For example, in a 7th-grade journal prompt on heat transfer, the student is shown a diagram of a thermos flask and asked how each of its parts helps to keep the coffee hot. The student must evaluate the engineering design of the thermos (standard 7.2D) and explain how the parts work to keep the coffee hot (standard 7.3A). They also have to communicate their explanation individually in a variety of settings and formats (7.3B)

Materials include assessments that require students to apply knowledge and skills to novel contexts.

- EduSmart's readers include assessments that require students to apply knowledge and skills to novel contexts by connecting the standard to a real-world scenario and using a 5-question assessment that requires students to apply their knowledge to a novel context. An example is 7.13A, reader, in which students apply their knowledge of the integumentary system to the importance of sunscreen. The Interactives in EduSmart embed assessments that contain various assessment types, including drag and drop and multi-select, as students apply their content knowledge in a gamified platform to review science content
- Materials include formative assessments that require students to apply knowledge and skills to novel contexts. The readers are "high quality, high interest leveled readers that connect the TEKS to a real-world scenario or problem." At the end of each Reader activity, students answer five questions to assess their understanding and application of the information. In 7.11A reader "Water Pollution", students answer a short, constructed response to explain what causes red tides and how it can alter ecosystems in the water.
- Materials also include assessments that require students to apply knowledge and skills to novel contexts. "Journal prompts serve as an avenue for students to reflect on their learning, connect scientific principles to real-life scenarios, and demonstrate their grasp of scientific ideas." In 7.9C Journal 1 - Life in Our Solar System, students compare features of Earth and Mars to determine if they think life could be supported on Mars. In Journal 2 - Life in Our Solar System, students analyze the characteristics of objects in our solar system that allow life to exist. In Journal 3 - Life in Our Solar System, students reflect on the accommodations that have been made to support life in space exploration on a small scale.

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- The EduSmart readers include questions that require students to apply the knowledge and skills they learned from the reader and the classroom to the novel context of the information in the reader. For example, in 7th grade, a reader called “Physical and Chemical Changes” had five questions on a worksheet related to the text they read about physical and chemical changes. The questions are not straight from the reading itself but rather from a novel context in which students must apply what they learned from the reading to answer the question. EduSmart provides Journal activities that prompt students to answer and explain their conclusions to questions that require the students to apply knowledge and skills to novel contexts. For example, in 7th grade, there is a journal prompt about heat transfer and safety. The students had to apply their knowledge of heat transfer to answer questions on when and why safety equipment would be necessary in the lab related to heat transfer.

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Indicator 6.2

Materials include guidance that explains how to analyze and respond to data from assessment tools.

1	Materials include information and/or resources that provide guidance for evaluating student responses.	M
2	Materials support teachers' analysis of assessment data with guidance and direction to respond to individual students' needs, in all areas of science, based on measures of student progress appropriate for the developmental level.	M
3	Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension.	M
4	Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include guidance that explains how to analyze and respond to data from assessment tools.

Materials include information and/or resources that provide guidance for evaluating student responses. Materials support teachers' analysis of assessment data with guidance and direction to respond to individual students' needs, in all areas of science, based on measures of student progress appropriate for the developmental level. Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension. Lastly, materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.

Evidence includes but is not limited to:

Materials include information and/or resources that provide guidance for evaluating student responses.

- The materials provide sample responses for Claim Evidence Reasoning (CER) simulations to help when evaluating student responses to the lab. Materials provide a Teacher Edition of simulations and hands-on activities. This provides possible answers to the questions students complete throughout the activity.
- EduSmart provides an instructional unit teacher guide that gives background information for the teacher, including prerequisite knowledge of students, misconceptions, essential questions, and sample answers for the essential questions. The teacher can use the Unit Teacher Guide to guide them in evaluating student responses. EduSmart also provides an Instructional Module(IM) and an Instructional Module Companion(IMC). The teacher can use the teacher version of the Instructional Module Companion as a guide when evaluating student responses on the Instructional Module Companion.
- Materials include resources that provide guidance for evaluating student responses. Each of the simulations and hands-on activities comes with a teacher edition, which provides possible answers to the questions students complete throughout the activity. Materials include information that provides guidance for evaluating student responses. Each unit includes a teacher's guide, which includes essential questions students should be able to answer at the end of the unit. The teacher's guide also provides answers to the questions (and common

misconceptions) to help teachers provide guidance and evaluate student responses to the essential questions. Materials also include resources that provide guidance for evaluating student responses. For example, each of the Engineering Design Challenges comes with a scoring rubric to assess students' work.

- EduSmart provides teacher versions of Engineering and Design challenges that provide a rubric for guidance on evaluating student products. The teacher version also gives guidance on discussion, design analysis, and product discussion. EduSmart also provides teacher guidance on essential questions found for each unit within the Scope and Sequence in the Unit Teacher Guide. The Unit Teacher Guide provides exemplars to help teachers evaluate student responses to the essential questions for the unit of study.

Materials support teachers' analysis of assessment data with guidance and direction to respond to individual students' needs, in all areas of science, based on measures of student progress appropriate for the developmental level.

- EduSmart provides an implementation strategies document that guides teachers on how to effectively use their resources to support individual student needs. EduSmart provides reports that teachers can use to analyze assessment data from students. Teachers can monitor the progress of individual students on their quizzes and various assignments within EduSmart. Teachers can use this information to guide and direct students as they progress throughout each unit.
- Materials provide an Implementation Strategies Guide to help teachers effectively use the resources available throughout the EduSmart curriculum. Once teachers review student progress in the activity reports, they will be able to customize the work each student is required to complete as they continue to develop their content knowledge based on the suggestions in the Implementation Strategies Guide.
- EduSmart provides guidance and direction to respond to students' needs based on measures of student progress with their Implementation Strategies Guide. The guide gives support for teachers by providing differentiation strategies, groupings, assignment applications, and explanations of how to use each of their activities with students either individually, virtually, or as small groups or whole groups. It also provides a paragraph on how to support students who are accelerated learners or learners who require additional support.

Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension.

- The materials provide detailed assessment reporting, progress monitoring, and quick reteach features to meet individual student needs.
- EduSmart's assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension. This assessment tool can provide detailed information on student performance, including questions missed, the number of minutes used, and student answer choices. EduSmarts assessment monitoring tools can also track student performance on specific skills or concepts, as well as track student overall growth. This will allow teachers to monitor individual student progress throughout the unit and, over time, plan appropriate instruction to meet their needs.
- EduSmart assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension. Teachers have access to reports to be able to see

student performance on assignments and quizzes and also a quick glance to see how many of the assigned activities have been completed by each student. EduSmart assessment tools provide reports detailing questions missed, students' answers, explanations for the correct answer, and the amount of time spent on the activity.

- EduSmart provides assessment tools that provide data to teachers that give relevant information for them to use to plan instruction, intervention, and extension for students. Teachers can pull a variety of reports that yield this information in the View Reports section of the My Groups on their website.

Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.

- The Implementation Strategies document provides guidance on how to use the resources to support students and respond to individual student needs. The platform allows teachers to assign work that is differentiated and based on a student's need (struggling or excelling).
- EduSmart provides a variety of resources and teacher guidance on how to leverage different activities to respond to student data using implementation strategies. The Implementation Strategies Guide provides teachers with guidance on how to use various resources to support student learning and respond to individual student needs based on data.
- EduSmarts assessment monitoring tools can track student performance on specific skills or concepts, as well as track student overall growth. This will allow teachers to monitor individual student progress throughout the unit and, over time, plan appropriate instruction using the resources provided within EduSmart to target students' needs based on data.
- Materials provide a variety of resources for teachers to use in responding to student performance data. Each grade level has access to an Implementation Strategies Guide, which describes each of the activities available in the EduSmart digital platform and how they can be used to help students work towards mastery of science concepts. Furthermore, materials provide teacher guidance on how to respond to student data. Teachers can access individual or class data to determine student understanding of a specific question, idea, or concept. Teachers can use the data to create small groups and assign additional reteach or extension based on individual student progress in the content.
- EduSmart provides an Implementation Strategies Guide that provides guidance for teachers on how to leverage different activities to respond to student needs. For example, the guide for the Anchoring Phenomenon activity states, "Have students discuss the phenomenon in small groups or pairs before facilitating whole group discussion to support ELL students as well as students requiring extra processing time or student talk." EduSmart provides the ability for teachers to create their groups to assign students so they may leverage different activities and respond to student data. Teachers can assign different resources to students based on their needs and group students according to these needs. In this manner, teachers can use the student data and create intervention, extension, and extra help opportunities for students.

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Indicator 6.3

Assessments are clear and easy to understand.

1	Assessments contain items that are scientifically accurate, avoid bias, and are free from errors.	M
2	Assessment tools use clear pictures and graphics that are developmentally appropriate.	M
3	Materials provide guidance to ensure consistent and accurate administration of assessment tools.	M
4	Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Assessments are clear and easy to understand.

Assessments contain items that are scientifically accurate, avoid bias, and are free from errors. Assessment tools use clear pictures and graphics that are developmentally appropriate. Materials provide guidance to ensure consistent and accurate administration of assessment tools. Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.

Evidence includes but is not limited to:

Assessments contain items that are scientifically accurate, avoid bias, and are free from errors.

- The materials provide quizzes that address the TEKS in a scientifically correct manner. The questions cover the full range of the Depth of Knowledge (DOK) avoid bias, are free from errors, and are straightforward. The quiz for standard 7.14B includes questions involving domains; the questions are on target, and the correct answers are scientifically accurate. The materials provide reviews that can be used as informal assessments or checks for understanding. These contain 3-5content content-related questions that are straightforward, scientifically accurate, and free from errors.
- Another example is standard 7.11A, the Watersheds quiz the questions range on the Depth of Knowledge and provide straightforward questions that avoid bias and are free from errors. EduSmart provides assessment questions to accompany the readers. Those assessment questions are scientifically accurate, avoid bias, and are free from errors. An example is the 7.7AC Speed, Distance, and Time Reader, which contains four different readers with five questions each to accompany the reading and measure mastery. In the review for standard 7.11A, there is a question students must answer about a model to show how human activity can affect watersheds.
- EduSmart assessments contain items that are scientifically accurate, avoid bias, and are free from errors. For example, the 7.7BD Newton's First Law of Motion Quiz includes ten questions about balanced and unbalanced forces and applying Newton's first law of motion, which are straightforward to avoid bias, assess varying levels of understanding, and are free from errors.

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Assessment tools use clear pictures and graphics that are developmentally appropriate.

- The material uses clear pictures and graphics. For example, the 7.13B Cells to Organisms Quiz includes clear pictures to supplement question 7, which asks students to choose a statement that correctly describes one characteristic of the digestive system in a flatworm like the one pictured. The materials also provide student reviews that use clear pictures and graphics that are developmentally appropriate and appropriate for the course. For example, in 7.13B Cells to Organisms, the student review guides the students through a summary of the instructional module, hitting all the key points. The graphics and pictures used are developmentally appropriate and clear for 8th-grade students to use and understand the concepts.
- EduSmart's quizzes feature pictures that are large enough to be able to be seen clearly. The images are also developmentally and course-appropriate. For example, the 7.6D Aqueous Solutions Quiz contains pictures that are clear and appropriate. Additionally, EduSmart's student reviews use clear pictures and graphics that are developmentally appropriate and appropriate for the course. For example, in 7.12ABC *Thermal Energy Transfer*, the student review guides the students through a summary of the instructional module, hitting all the key points. The graphics and pictures used are developmentally appropriate and clear for 6th-grade students to use and understand the concepts.
- Another example is in the 7.14B Classifying Organisms Quiz, which includes a clear graphic organizer to show kingdom, phylum, and class for students to use to answer question 4. Material assessment tools use pictures and graphics that are developmentally appropriate for the grade level. For example, the 7.8ABC Thermal Energy Transfer Quiz question 3 includes a picture of an experiment to study convection, and students have to choose which picture is labeled correctly to show the flow of air in and out of the box.
- The EduSmart quizzes have pictures that are easy to read and that relate to the question. EduSmart provides assessment tools that use clear pictures and graphics that are developmentally appropriate. For example, their interactivities provide interactive graphics and pictures that allow students to assess their understanding of the concept.

Materials provide guidance to ensure consistent and accurate administration of assessment tools.

- The materials provide the implementation strategies guide that guides teachers through the process of administering student quizzes. The materials provide the implementation strategies guide that helps teachers through the process of administering student reviews
- EduSmart's materials provide guidance to ensure consistent and accurate administration of assessment tools. EduSmart's implementation strategies guide provides teachers with guidance on administering student quizzes. EduSmart's materials provide guidance to ensure consistent and accurate administration of assessment tools. EduSmart's implementation strategies guide provides teachers with guidance on administering student reviews. For example, the Implementation Strategies document provides details on which activities can be used as formal or informal assessment tools throughout the course of a unit. Materials also provide guidance in the EduSmart quiz answer keys. The answer key not only provides the correct answer but an explanation for why it is the correct answer based on the content taught in the Instructional Modules and other supporting activities.
- EduSmart provides materials that provide guidance to ensure consistent and accurate administration of assessment tools, which includes motions of how to use each activity along with suggestions and time lengths.

- The Engineering and Design Challenge has a rubric that helps the teacher ensure consistent and accurate administration of the challenge to students and how to grade each challenge. Teacher Versions for certain activities allow for consistent grading and accurate administration of assessment tools and activities.

Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.

- The materials provide text-to-speech options in all assessments as well as language support accommodations to allow all students to demonstrate mastery of the content. The materials provide text-to-speech options in all reader activities as well as language support as accommodations to allow all students to demonstrate mastery of the content.
- Each grade band of EduSmart has a correlating ELPS document that contains suggested accommodations for students to demonstrate mastery of knowledge and skills based on their English proficiency. For example, a suggested accommodation for teachers to utilize for students at the intermediate proficiency is to provide sentence stems with simple structures and tenses, and for the advanced high proficiency is to provide opportunities for extended discussions with students. EduSmart materials also include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned with learning goals. EduSmart quizzes feature text-to-speech options in all assessments as well as language support as accommodations to allow all students to demonstrate mastery of the content.
- EduSmart provides materials that include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills. In each of their digital versions of quizzes, EduSmart provides text-to-speech for students who need it to assist them with answering questions to demonstrate mastery of knowledge and skills. EduSmart also provides materials that include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills with their Implementation Guide. This guide provides suggestions for teachers to accommodate students in their activities to allow them to demonstrate mastery of knowledge and skills for each science concept. Additionally, EduSmart provides materials that include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills with their ELPS Implementation Guide. This guide provides suggestions for teachers to accommodate Emergent Bilingual students for their activities to allow them to demonstrate mastery of knowledge and skills at various language levels for each science concept.

EduSmart Science Grade 7

Indicator 7.1

Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

1	Materials provide recommended targeted instruction and activities to scaffold learning for students who have not yet achieved grade-level mastery.	M
2	Materials provide enrichment activities for all levels of learners.	M
3	Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials provide recommended targeted instruction and activities to scaffold learning for students who have not yet achieved grade-level mastery.

Materials provide recommended targeted instruction and activities to scaffold learning for students who have not yet achieved grade-level mastery. Materials provide enrichment activities for all levels of learners. Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.

Evidence includes but is not limited to:

Materials provide recommended targeted instruction and activities to scaffold learning for students who have not yet achieved grade-level mastery.

- The Grade 7 Implementation Guide provides teacher guidance for differentiation using stations, ELPS strategies, and accelerated support. The Grade 7 materials review, reteach, and spiral skills in the form of student reviews, interactivities, instructional module companions, and Word Explorer activities.
- EduSmart materials provide multiple opportunities for targeted instruction as they work towards mastery of the content. For example, if a student answers a question incorrectly within the Interactivity, the graphics and verbal explanations help support the student's better understanding of the content. Students are allowed multiple attempts to improve their scores.
- EduSmart materials primarily recommend scaffolded instruction through the use of small group stations to allow the teacher time to work one-on-one or within one of the groups to support students who have not yet reached mastery.
- EduSmart materials provide sentence stems through the ELPS Strategies document, which is accessible to all teachers and can be used for all students.
- EduSmart provides recommendations for targeted instruction within their Implementation Guide to help teachers scaffold learning for students who have not yet achieved mastery. For example, the Implementation Guide for the Instructional Module recommends:
    - a) Accelerated Learners remove the word bank for a more student-led experience.
    - b) Prefill the word or a portion of the word to support students as they take notes.
    - c) Number each sentence to help maintain organization.
    - d) Remove every other sentence to increase white space to give additional processing time as needed.

- EduSmart provides leveled readers to help students who have not yet reached mastery in the subject or are below reading level. Additionally, within these readers, students have the option to use text-to-speech accessibility.

Materials provide enrichment activities for all levels of learners.

- The implementation strategies document provides information to teachers for recommended activities to scaffold learning throughout the unit. Because the interactives and simulations are engaging activities in a gamified format, they could be used as enrichment activities for that unit.
- EduSmart materials provide enrichment activities for all levels of learning. The Implementation Strategies guide offers suggestions on station activities for students that can be used as enrichment or reinforcement for all students. EduSmart materials also provide enrichment activities for all levels of learners. For example, for 7.9AB, the Solar System Activity, students use their knowledge of how gravity contributes to the motion of the planets and how the force of gravity might change in different hypothetical situations. The student worksheet also includes a bonus question about how a planet's movement might change if there was friction in space.
- EduSmart provides opportunities for enrichment for levels of learners. Hands-on activities have an extension section that allows students to expand their knowledge of the scientific concept being studied.In 7th grade, the hands-on activity called Investigating Aqueous Solutions and Their Components has an extension section that reads: "Find out more on the internet or in the library about scientists who develop new drinks and foods. What are these scientists called?"
- EduSmart provides an Implementation Guide that suggests stations. Within one of the stations is a Makerspace option that would provide extension opportunities for all learners. The Implementation Guide has suggestions and explanations of each activity and a differentiated instruction section that makes suggestions for how to engage students.

Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.

- Grade 7 materials provide a Scope and Sequence and Unit Resource Guide to help teachers prepare lessons. EduSmart allows teachers the ability to individualize instruction by assigning certain components or playlists to students based on their level of mastery. EduSmart provides an Implementation Guide for engaging in accelerated learning. The Implementation Guide that has this section states, "Below is suggested differentiation for accelerated learners and learners who require additional support." EduSmart also provides guidance for teachers to help them scaffold students within the lesson.
- The implementation strategies document provides information to teachers for recommended activities to scaffold learning throughout the unit. The unit teacher's guide provides a list of scaffolded essential questions that the teacher can use as a guide for student understanding of concepts.
- The grade level Scope and Sequence, in conjunction with the Unit Resource Guides and Implementation Strategies documents, allow teachers to plan ahead for just-in-time learning acceleration for all students. Educators should begin with the unit's anchoring phenomena to engage students' prior knowledge and determine their level of understanding prior to determining the flow of instruction for the unit and the educational materials that will be most impactful for the class. Additionally, EduSmart's LMS allows educators to create a custom playlist of activities to individualize a student's learning experience. Educators can assign online learning activities for additional practice, reinforcement, or enrichment depending upon the

needs of the students. Activities can be completed individually or in small groups based on their educational needs.

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Indicator 7.2

Materials include a variety of research-based instructional methods that appeal to a variety of learning interests and needs.

1	Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content.	M
2	Materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one).	M
3	Materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation.	M
4	Materials represent a diversity of communities in the images and information about people and places.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include a variety of research-based instructional methods that appeal to a variety of learning interests and needs.

Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content. Materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one). Materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation. Materials represent a diversity of communities in the images and information about people and places.

Evidence includes but is not limited to:

Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content.

- Grade 7 materials include authentic tasks where students collect data, use multimodal texts, interactivities, concept maps, and hands-on activities that allow students to engage in the mastery of content. Grade 7 materials also include Instructional Modules that include structured videos designed to support the instruction of specific scientific concepts and topics. “Each video has multiple breaks to facilitate student discussion – Whole class, Think-Pair-Share, or note-taking.”
- Grade 7 materials provide an instructional strategies document that helps guide the teacher with suggestions to engage students in the mastery of the content. Grade 7 unit module materials contain a variety of activities to engage students in mastery of the content, such as simulations, interactives, and hands-on lab experiences.
- EduSmart materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content. Examples within EduSmart include, but are not limited to, video clips to introduce or reinforce science concepts, authentic hands-on activities, education game-based simulations for learning, connections to real-world situations, and opportunities for design and problem-solving.

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- EduSmart provides a variety of developmentally appropriate instructional approaches to engage students in the mastery of science concepts and content. These activities include authentic tasks. For example, in 7th grade, students can do Engineering and Design Challenges connected to real-life problems and situations in which students must present a solution, using the engineering and design process and skills. Furthermore, EduSmart provides a variety of developmentally appropriate instructional approaches that engage students in the scientific process. For example, EduSmart provides multimodal texts, lessons with video clips, opportunities for inquiry-based learning with hands-on activities, gamified instructional simulations and interactivities, and anchoring phenomena activities that allow students to engage in the scientific and engineering process.

Materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one).

- The Implementation Guide provides teachers with suggestions for using hands-on activities individually, in small groups, or with partners. It is also suggested that student reviews be used in small groups for a teacher-led reteach. The Implementation Guide also provides teachers with suggestions for using readers as a whole group, small group, or individually.
- The Implementation Guide supports flexible groupings by suggesting opportunities for changing student groups. EduSmart also provides flexible grouping opportunities throughout each unit. These opportunities could include the anchoring phenomena, the Instructional module, and the hands-on activities.
- EduSmart materials support flexible grouping. The Implementation Strategies Guide provides the educator with guidance on grouping options for each of the main components of the EduSmart curriculum. For example, the Implementation Strategies Guide recommends that the Student Review is “great for small group intervention setting for teacher-led reteach or review.” Furthermore, EduSmart LMS allows the teacher to group students and assign work based on their individual learning needs. Teachers can easily move students from one group to another as students develop their scientific understanding throughout the unit.
- EduSmart provides an Implementation Strategies document that gives guidance on different flexible groupings. For example, the Implementation Strategies document states how to use groupings within each of their activities. EduSmart provides materials that lend themselves to grouping opportunities. For example, according to the Implementation Guide, the Anchoring Phenomenon activities allow the teacher to “Have students discuss the phenomenon in small groups or pairs before facilitating whole group discussion to support ELL students as well as students requiring extra processing time or student talk.” The Implementation Guide also suggests that Instructional Modules “can be used with the whole group or assigned virtually for small groups or individuals" and "each video has multiple breaks to facilitate student discussion – Whole class, Think-Pair-Share or note-taking.”

Materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation.

- EduSmart materials provide multiple types of practice (e.g., note-taking, hands-on activities, engineering design challenges, online simulations) that appeal to a variety of learning interests and needs. Educators will need to simultaneously use the Teacher Unit Guide, grade level Scope and Sequence, and Implementations Strategies Guide to ensure the successful implementation of a variety of research-based instructional strategies.

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- EduSmart provides an Implementation Strategies Guide that, when used in conjunction with the grade level Scope and Sequence, provides the guidance and structure needed to achieve effective implementation.
- EduSmart provides a teacher version of all hands-on activities, as well as rubrics for providing feedback to students. For example, the teacher versions of TEKS 7.6AB Elements vs. Compounds Showdown state the specific objective for the activity as "To compare and contrast elements and compounds in terms of atoms and molecules, chemical symbols, and chemical formulas. Additionally, the teacher version provides prompts for the teacher during the introduction phase of the lesson for modeling "Being the activity by explaining the concept of elements and compounds to students. Emphasize the differences between the two, focusing on the concepts of atoms and molecules, chemical symbols, and chemical formulas. Use visual aids such as a periodic table or project to showcase examples of elements and compounds and their respective chemical symbols and formulas.
- EduSmart provides four Engineering Design Challenges for each grade level. All Engineering Design Challenges are written for students to work collaboratively. Students are also encouraged in all Engineering Design Challenges to engage in respectful argumentation to support their presentations.

Materials represent a diversity of communities in the images and information about people and places.

- EduSmart materials provide diversity as seen within the Anchoring phenomena; images and graphics represent a diverse group of people and places. SEP and RTC readers depict images and graphics that represent a diverse group of people and places.
- EduSmart materials provide diversity throughout the choice of images it uses within its product. EduSmart provides diversity in the types of activities chosen that appeal to a diverse group of students and their interests.
- EduSmart's Anchoring Phenomena represents a diversity of communities in the images and information about people and places. EduSmart's Readers represent a diversity of communities in the images and information about people and places.
- EduSmart provides materials that represent diverse communities and use images and information that are respectful and inclusive. For example, their instructional modules provide videos that represent diverse groups of people and include male and female representations, and they represent diverse backgrounds, including different races. ethnicities, and nationalities. Additionally, EduSmart provides materials that represent diverse communities and use graphics and information that are respectful and inclusive. For example, the readers and anchoring phenomena activities provide videos, graphics, and examples that are inclusive of various genders, groups, ethnicities, and nationalities.

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Indicator 7.3

Materials include listening, speaking, reading, and writing support to assist emergent bilingual students in meeting grade-level science content expectations.

1	Materials include guidance for linguistic accommodations (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency as defined by the ELPS.	M
2	Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include listening, speaking, reading, and writing support to assist emergent bilingual students in meeting grade-level science content expectations.

Materials include guidance for linguistic accommodations (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency as defined by the ELPS. Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English.

Evidence includes but is not limited to:

Materials include guidance for linguistic accommodations (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency as defined by the ELPS.

- The materials include an ELPS Strategies Guide that describes how to implement the ELPS (Beginner, Intermediate, Advanced, and Advanced High) using EduSmart for the following components: 1- Anchoring phenomenon accommodations for listening and speaking include graphic organizers, conversation stems, think,pair, share, and word banks; 2- Instructional Module and Companion accommodations for listening, speaking, reading, and writing include pre-teaching vocabulary, conversation stems, think, pair, share, use native tongue, provide linguistic support with editable IMC, and peer collaboration on graphic organizers and journal prompts; 3- Readers accommodations for reading and writing include text-to-speech, pre-teaching vocabulary, conversation stems, think, pair, share, and assign reader based on reading level; 4- Hands-On Activities and Lab accommodations for listening, speaking, reading, and writing, include pre-teaching vocabulary, conversation stems, think, pair, share, teacher demonstrating the steps, simplify language, peer support and interaction as seen in my previous piece of evidence.
- The materials suggest linguistic accommodations throughout the lesson.In the unit teacher's guide, it lists which skills are highlighted in which activities. For example, Speaking – Anchoring Phenomenon, Instructional Module, activities, CER. Listening – Instructional Module, Science Investigation Activities, Student Review, Interactivities, activities. Writing – Instruction Module Companion, Journal prompts, Science Investigation, activities with CER or lab data form, activities, Readers. Reading – Instruction Modules, Instruction Module Companions, Readers,

activities, Word Explorer. Furthermore, materials suggest the use of graphic organizers to classify information, order steps in a process, or scaffold written tasks.

- ELPS Strategies Guides provides sentence stems for EB students on four levels: beginner, intermediate, advanced, and advanced high. Sentence stems are provided for various components of speaking and writing in science: generating questions, conducting experiments, and analyzing results from experiments. EduSmart materials also provide an ELPS Strategies Guide to provide guidance for linguistic accommodations for students with various levels of English language proficiency. The ELPS Strategies Guide provides activity-specific guidance on how to support EB students while they listen, speak, read, and write.
- EduSmart provides an ELPS Implementation Guide that includes guidance for linguistic accommodations for their materials for each level of English language proficiency as defined by the ELPS. For example, for Hands-On Activities and Labs, "EduSmart's activities are inquiry-based hands-on labs, investigations, application practice, and research. These activities focus on listening, speaking, reading, and writing." They have a chart that goes through each level of ELPs for each skill: Listening, Speaking, Reading, and Writing. They also provide techniques overall that could apply to students who are emergent bilingual: "The following are some strategies and techniques that can be used with hands-on activities:
    - Pre-teach vocabulary
    - Edit the student documents to provide additional support through simplifying language or instructions
    - Provide sentence stems for reflections
    - Teacher demonstrates the steps for the activity
    - Provide word banks or glossaries
    - Provide verbal and visual instructions
    - Allow the student to use native language
    - Peer support and interaction

Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English.

- The ELPS Strategies guide, it is encouraged allow students to use their native language. Furthermore, according to the ELPS Strategies guide encouraged allow students to follow along to the instructional module with closed captioning
- In the ELPS strategies document for each unit, EduSmart includes suggestions for teachers about when it is appropriate to use native language supports. During the anchoring phenomena, readers, hands-on activities, and IM/IM Companion, EduSmart suggests allowing the student to use their native language.
- Materials encourage strategic use of students' first language as a means to support their development of English and meet grade-level science content expectations. The ELPS Strategies Guide makes this recommendation for all activities with EB students at the "beginners" level.
- EduSmart provides encouragement of first language usage for students within their ELPS Implementation Guide. For example, "The following are some strategies and techniques that can be used with the instructional module and instructional module companion: Allow the student to use native language." EduSmart also provides encouragement of first language usage for students within their ELPS Implementation Guide. The teachers would need to use this guide in conjunction with each of the activities provided in order to successfully implement the use of the student's native language.

EduSmart Science Grade 7

Indicator 7.4

Materials provide guidance on fostering connections between home and school.

1	Materials provide information to be shared with students and caregivers about the design of the program.	M
2	Materials provide information to be shared with caregivers for how they can help reinforce student learning and development.	M
3	Materials include information to guide teacher communications with caregivers.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials provide guidance on fostering connections between home and school.

Materials provide information to be shared with students and caregivers about the design of the program. Materials provide information to be shared with caregivers for how they can help reinforce student learning and development. Materials include information to guide teacher communications with caregivers.

Evidence includes but is not limited to:

Materials provide information to be shared with students and caregivers about the design of the program.

- EduSmart features a caregiver letter that explains the design of EduSmart, how it is used in the classroom, and how it can be used at home to reinforce a student's learning.
- EduSmart provides a communication document that can be used to help guide teachers in ways they can effectively communicate with caregivers. It provides a list of suggested methods to communicate with caregivers.
- EduSmart materials include a letter to caregivers that provides information about the design of the program. The letter to caregivers says, “The curriculum is designed to provide an engaging, interactive way for your children to explore science topics and develop a deeper understanding of science concepts.” It also states, “EduSmart is designed to provide a wide range of tools to help your student track their progress, such as an interactive dashboard that displays their scores and allows them to re-try any tricky assignments and together you can go over any question they did not understand if you choose to do so. This will help them understand their strengths and weaknesses and provide an idea of which topics they should focus on.”
- The EduSmart materials also include a “Teacher Communication Guide” that states, “... communication with parents and caregivers is essential to developing student success and mastery for science content.” The Teacher Communication Guide also provides four suggested methods for teachers to communicate at home: progress reports, parent access, student portfolios, and a classroom newsletter.

EduSmart Science Grade 7

Materials provide information to be shared with caregivers for how they can help reinforce student learning and development.

- EduSmart materials include a letter to caregivers that provides information on how they can help reinforce student learning and development from home. The letter provides space for student information for logging into the EduSmart dashboard at home to share what they are currently learning and how they performed on previous assignments and activities. Students are encouraged to "... share what they have learned from class as it increases their memory!"
- The letter also provides possible conversation starters to help caregivers engage their children in conversation about what they are currently learning in science.
- EduSmart materials also include a Teacher Communication Guide that recommends regular progress reports to send home to caregivers. "The information will provide them with the academic progress of the student and allow them to view which areas their students are progressing in or which areas they are still developing. The materials also encourage "parent access" to reinforce learning at home by allowing the parents to learn alongside their children. Parents should be encouraged to review the Instructional Modules to understand the science content and have conversations with their students at home about what they are learning in the classroom. Parents are also encouraged to access the Readers to "... engage in reading aloud to their child at home."

Materials include information to guide teacher communications with caregivers.

- The platform provides a way for teachers to share a student's report with caregivers (printed or digitally using a screenshot). Materials also provide a Teacher Communication Guide to help effectively communicate with caregivers. The Teacher Communication Guide states, "... communication with parents and caregivers is essential to developing student success and mastery for science content." The Teacher Communication Guide also provides four suggested methods for teachers to communicate at home: progress reports, parent access, student portfolios, and a classroom newsletter. "By using these potential methods of communication, teachers can help build relationships with families as well as provide opportunities to work together to support the student's academic development through using EduSmart's content and learning platform."
- EduSmart provides a way for teachers to print a student report from their dashboard to send home to caregivers or to use as a reference in communication with caregivers.

EduSmart Science Grade 7

Indicator 8.1

Materials include year-long plans with practice and review opportunities that support instruction.

1	Materials are accompanied by a TEKS-aligned Scope and Sequence outlining the order in which knowledge and skills are taught and built in the course materials.	M
2	Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts.	M
3	Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include year-long plans with practice and review opportunities that support instruction.

Materials are accompanied by a TEKS-aligned Scope and Sequence outlining the order in which knowledge and skills are taught and built in the course materials. Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts. Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.

Evidence includes but is not limited to:

Materials are accompanied by a TEKS-aligned Scope and Sequence outlining the order in which knowledge and skills are taught and built in the course materials.

- Materials include a comprehensive TEKS-aligned Scope and Sequence located on the Teacher Resources tab. This document outlines the order in which knowledge and skills are taught and built in the course materials for Grade 7. The Scope and Sequence include the reporting category for the TEKS, the unit, suggested days, essential questions, new grade-level words, words with prior knowledge, suggested Scientific and Engineering Practices (SEPs), and Recurring Themes and Concepts (RTCs) connections, and possible activities aligned with each standard.
- The material includes a Vertical Alignment Tool that identifies each grade level TEKS, including grade 7. The tool located on the teacher resources tab links the concepts progressively across grade 6 through Biology. This tool clearly shows how science content will be spiraled and built upon over the course of the year and through Biology. The Vertical Alignment Tool also includes SEPs and RTCs.
- Materials include a 5E filter that allows teachers to use a 5E model set up to outline the order in which knowledge and skills are taught for a particular standard.

Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts.

- Teachers can access the Implementation Strategies document located under the Teacher Resources tab for guidance. The materials included provide clear teacher guidance on

implementation. For example, the implementation strategies document includes anchoring phenomenon examples to facilitate student-made connections. The material includes teacher guidance for RTCs across all grade levels. Teachers can reference a recurring concept and view teacher resources, instructions, hands-on activities, and vocabulary and literacy.

- The materials provide connections and suggestions in the Scope and Sequence for the SEPs and RTCs. The Scope and Sequence document allows teachers to anticipate the SEPs as well as the RTCs TEKS so that they can plan and review how the standards connect to the core concepts. Teachers can access the science and engineering practice tile activities to support the content within specific units. This provides suggested SEPs and RTC connections for each unit of study. For example, in the Unit Three Domain Classification (7.14B), the teacher edition for the Engineering Design Challenge clearly identifies the SEPs and RTCs associated with the project.

Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.

- The Teacher Implementation Guide Secondary describes interactivities as formative assessments that are "... gamified for high student engagement." The Implementation Strategies document provides clear descriptions of the activities to ensure students have opportunities to review and practice knowledge and skills spiraled throughout the year to support mastery and retention.
- Materials provide students with multiple opportunities to build on their science knowledge and skills. For example, in the grade 7 unit on Elements and Compounds, students explore the properties of elements and compounds in a simulation, complete notes, and then use a word bank to write two paragraphs – one to describe elements and one to describe compounds. Another opportunity to review and apply knowledge from instruction can be found in the lesson Life in our Solar System 7.9(C). Students use inquiry-based hands-on activities to practice, research, and include background information and step-by-step directions to investigate the Earth's water, sun, and atmosphere.
- Materials provide opportunities for students to review and practice with content-specific TEKS. For example, in grade 7, there is a 5E lesson on Aqueous Solutions that has a Student Review activity as well as a Quiz. The vertical alignment document allows teachers to see what standards spiral from previous grade levels. The Scope and Sequence documents are provided for each grade level. Within these documents, teachers can anticipate when standards will be taught as well as what scientific and engineering practice TEKS and recurring themes and concepts TEKS will be addressed in each unit. This document allows teachers to view when these standards will be spiraled and addressed again.

EduSmart Science Grade 7

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

1	Materials provide teacher guidance and recommendations for use of all materials, including text, embedded technology, enrichment activities, research-based instructional strategies, and scaffolds to support and enhance student learning.	M
2	Materials include standards correlations, including cross-content standards, that explain the standards within the context of the grade level.	PM
3	Materials include a comprehensive list of all equipment and supplies needed to support instructional activities.	M
4	Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.	M

Partial Meets | Score 1/2

The materials partially meet the criteria for this indicator. Materials include some classroom implementation support for teachers and administrators.

Materials provide teacher guidance and recommendations for use of all materials, including text, embedded technology, enrichment activities, research-based instructional strategies, and scaffolds to support and enhance student learning. Materials include some standards correlations, including cross-content standards, that explain the standards within the context of the grade level. Materials include a comprehensive list of all equipment and supplies needed to support instructional activities. Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.

Evidence includes but is not limited to:

Materials provide teacher guidance and recommendations for use of all materials, including text, embedded technology, enrichment activities, research-based instructional strategies, and scaffolds to support and enhance student learning.

- Across the grade 7 standards, the materials have a PDF file with the Implementation Strategies found under Teacher Resources to support teachers' understanding of how to use all materials and resources as intended. The document includes recommendations on instructional and research-based activities for grade 7. The Teacher Implementation Strategies document briefly describes each activity's purpose, description, facilitation recommendations, and expected timeline.
- Materials provide a Unit Teacher Guide for teachers to give guidance on each part of the lesson and includes the standard the lesson is addressing, background information the teacher needs to be aware of, prior knowledge students should have on the concept, common misconceptions students might have about the concept, and essential questions the teachers should pose to students at some point during the lesson along with answers and explanations to those questions.

- Materials provide a Teacher Version of each activity that supplies questioning prompts for the teacher, directions on what to say and do with the material, and provides the teacher with more information if needed.

Materials include standards correlations, including cross-content standards, that explain the standards within the context of the grade level.

- The grade 7 materials provide activities called Readers that address Reading and Language Arts (RLA) standards, making them cross-content activities. Materials readers include the ELAR TEKS addressed within the reader. The materials do not provide cross-content standards for Math or Social Studies.
- The materials provide a Unit Teacher Guide for each content area, which identifies the TEKS, background information for the teacher, prerequisite knowledge for the students, common misconceptions, and essential questions. The enhanced Materials Reader's descriptions state the ELAR Standards corresponding to each reader.

Materials include a comprehensive list of all equipment and supplies needed to support instructional activities.

- For each grade 7 standard, the materials include a Grade-Level Material List that indicates all items needed for the multiple activities within each unit or over the course of the year. Within the hands-on activities section of the unit, there is a supply list for the grade level that includes both the consumable and non-consumable items needed for that grade level.
- There is a comprehensive document that contains the list of materials for the grade level. Additional materials are listed in each Student Investigation. For example, the grade 7 activity, Why Does a Cake Rise When Cooked? in the unit Physical and Chemical Changes, includes a list of eight materials.
- The Teacher Version of labs also provides a materials list for any hands-on activities or labs. For example, in a grade 7 lesson under the standard 7.7(B)(D) Newton's First Law of Motion, there is a hands-on activity called "Speed, Velocity, and Acceleration," and within the Teacher Version, there is a materials list for the teacher.

Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.

- The Teacher Version provides safety materials and procedures for hands-on activities or lab investigations.
- The grade 7 lessons provide a teacher version, that contains a safety section that includes guidance for safety practices and the grade-appropriate use of safety equipment during the investigation.
- In the Physical and Chemical Changes Unit and the Why does a Cake Rise? activity, there is a clear safety statement written within the investigation. The section gives clear guidance for the use of wearing safety goggles and keeping their work area neat and clean. In addition, the safety guidance in each activity includes the following instructions: "Safety should be a top priority in any science activity. If you have questions regarding the safety practices of this activity, please ask your teacher for clarification. If there are any accidents, notify your teacher right away," along with activity-specific safety guidance such as wearing goggles.

EduSmart Science Grade 7

Indicator 8.3

Materials provide implementation guidance to meet variability in program design and scheduling.

1	Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities.	M
2	Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression.	M
3	Materials designated for the course are flexible and can be completed in one school year.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials provide implementation guidance to meet variability in program design and scheduling.

Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities. Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression. Materials designated for the course are flexible and can be completed in one school year.

Evidence includes but is not limited to:

Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities.

- The grade 7 Implementation Strategies PDF file lists the expected time for each of the following sections: Anchoring Phenomenon and Instruction Modules. There is a recommended amount of time for each lesson component in the implementation strategies for each instructional unit. For example, the anchoring phenomena for Unit 7.11(A), Watersheds Teacher Resources, takes 2–5 minutes, and the Implementation Module takes 20–30 minutes.
- The EduSmart materials provide guidance and recommendations on the required time for lessons and activities. For example, materials provide an Implementation Strategies document describing the various unit activities. Expected time recommendations are made for the Anchoring Phenomenon and Instructional Modules. A Scope and Sequence is provided for teachers to guide and recommend the required time for lessons and activities. The Unit Teacher Guide serves as a document to provide the necessary knowledge for the teacher to carry out the lessons.

Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression.

- The Scope and Sequence materials support scheduling considerations for the time allotment for each unit of study. The suggested Scope and Sequence guide educators with suggested timelines by reporting category, unit, and standard. Additionally, the Scope and Sequence are planned out to ensure content is taught in a specific order following a developmental progression.
- The progression of the activities and content within the implementation strategies document reflects a progression from direct instruction, guided learning, collaborative learning,

independent mastery, and then station activities for enrichment or intervention. The sequence of the suggested content allows for appropriate developmental progression through the TEKS and content that is required to be taught within one school year.

- The Scope and Sequence document follows the TEKS as outlined by the Texas Education Agency. By suggesting the number of days to be spent on each unit, it provides flexibility in the implementation of content while still ensuring that all grade-level content can be completed over the course of the year.

Materials designated for the course are flexible and can be completed in one school year.

- The grade 7 materials include sufficient lessons and activities to support a full academic year of learning. For example, the minimum suggested time found on the grade 7 level Scope and Sequence is 163 days of instruction, along with review, reteaching, and spiraling activities for mastery and retention. As seen in the Implementation Strategies document, grade 7 station activities and student reviews are designed to provide condensed versions of the instruction module and allow for adjusting to local time and scheduling constraints. For example, the Teacher Implementation Strategies document provides recommendations for using the materials, such as learning stations, which may allow additional classroom time for reinforcement and enrichment as needed.
- Materials have connected the SEPs and the recurring themes to multiple content TEKS to ensure that they are covered multiple times throughout the year. This is evident in the Scope and Sequence of the units since each has a recurring theme and or a scientific and engineering practice associated with it. For example, in the grade 7 Scope and Sequence, the Matter and Energy unit is suggested to take 10–12 Days and lists possible activities such as Anchoring Phenomenon, Instructional Modules, and Interactivities. This allows teachers to see a time frame for the unit but still have the flexibility for the amount of time spent on the unit as well as the activities they can use for the unit.
- Materials provide a 5E lesson option for the teacher to see which activities fit within a 5E lesson model. This allows the teacher to see which activities are best for each part of the cycle and flexibility when planning using a 5E instructional model coupled with the Implementation Strategies guide for the amount of time each lesson activity takes. For example, in grade 7 under 7.6(A)(B), the 5E model option lists multiple activities for the teacher to choose for their Explore, Explain, and Elaborate sections of the 5E lesson model. Under the Explore sections, the teacher can choose Interactivity or Hands-on Activity. Under the Explain section, teachers can choose an Instructional Module, the Instructional Module Companion, or a Student Review activity. Finally, teachers can choose Word Explorer, Journal, or Reader under the Elaborate section.

EduSmart Science Grade 7

Indicator 9.1

The visual design of materials is clear and easy to understand.

1	Materials include an appropriate amount of white space and a design that supports and does not distract from student learning.	Yes
2	Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.	Yes
3	Materials include digital components that are free of technical errors.	Yes

Not Scored

The visual design of materials is mostly clear and easy to understand.

Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. Materials include digital components that are free of technical errors.

Evidence includes but is not limited to:

Materials include an appropriate amount of white space and a design that supports and does not distract from student learning.

- The layout of the materials includes an appropriate amount of white space, and colorful images/graphics that help students focus on what is essential, and allow the user to follow along easily. The colors and fonts used ensure the content is easy to read and follow.
- The materials include appropriate amounts of white space and a design that enhances readability and student interaction. An example is the graphic for the human body systems. Students have ample white space for each system to label the images and explain the functions of the systems. In 7.12B, Cycling of Matter, the journal activity provides sufficient white space for the students to record their responses to the journal questions.
- The materials include appropriate white space, and the overall design does not distract from student learning. For example, the 7.12A Modeling Human Body Systems worksheet includes simple images of the body systems with ample space for students to add labels and record an explanation for the main function of each body system. Additionally, the digital platform color palette is used consistently throughout the entire middle level with bolder colors (orange) to draw attention to links for navigation.
- The quizzes are formatted with ample white space and appropriately sized images, making it possible to answer the questions in the materials. Additionally, readers have enough space and pictures for reference that make the text visually easy for students to read.

EduSmart Science Grade 7

Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.

- Materials include graphics and other images that are grade-level appropriate and serve a clear purpose to support the content being taught. The Instructional Modules (IM) used in the platform provide short video-style lessons with age-appropriate graphics and scenarios. The built-in pause portions of the IM allow students and teachers time to absorb the information and replay if needed to ensure understanding of the content being discussed.
- Materials use age-appropriate pictures and graphics to support student learning. An example is included in the anchoring phenomenon in 7.14A, which uses a video of an underwater ecosystem. The video shows a variety of organisms for which students are able to clearly see both in the still picture the organisms in that ecosystem along with the accompanying video that shows the organisms moving in that same environment. In 7.13C Types of Reproduction, there are plenty of pictures embedded within the reading to provide students with visuals that support their understanding of the concepts of the different types of reproduction.
- The materials include age-appropriate pictures and graphics that support student learning and engagement. For example, each Word Explorer activity includes a section where students choose all correct images related to the vocabulary word. For example, in 7.9C Life in Our Solar System Word Explorer, students click on one of the five vocabulary words and select images they believe match the word's meaning. For "atmosphere," students will select the two images of the sky but not the surface of the moon. All of these images emphasize the area around the surface of the Earth. Additionally, the materials embed age-appropriate pictures and graphics that support learning and engagement without being visually distracting. For example, in 7.8ABC Heat and Heat Transfer, students use an online simulation to "set the temperatures of two materials whose containers are in contact with each other" to observe the changes and determine the direction in which thermal energy moves. The images of the materials are clearly labeled so students know which materials they are investigating. Directions for completing the online investigation are clearly seen for students who do not complete the activity with their volume up.
- Materials embed age-appropriate pictures and graphics that support student learning and engagement. Their readers have pictures for reference that assist student comprehension and give examples for students that provide context while they are reading. EduSmart embeds age-appropriate pictures and graphics that support learning and engagement with their Instruction Modules. Modules provide concrete examples through graphics and videos that engage students and provide context to the science they are learning.

Materials include digital components that are free of technical errors.

- Materials are free of errors.
- Materials are free of technical errors.
- Materials are free of spelling, grammar, and punctuation errors.

EduSmart Science Grade 7

Indicator 9.2

Materials are intentionally designed to engage and support student learning with the integration of digital technology.

1	Materials integrate digital technology and tools that support student learning and engagement.	Yes
2	Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content.	Yes
3	Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate.	Yes
4	Materials integrate digital technology that is compatible with a variety of learning management systems.	Yes

Not Scored

Materials are intentionally designed to engage and support student learning with the integration of digital technology.

Materials integrate digital technology and tools that support student learning and engagement. Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content. Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate. Materials integrate digital technology that is compatible with a variety of learning management systems.

Evidence includes but is not limited to:

Materials integrate digital technology and tools that support student learning and engagement.

- Materials provide instructional modules, interactivities, and other digital technology that align with the learning objectives as outlined in the TEKS. The materials allow digital technology and tools to be used in whole group settings by being projected on the screen or on individual devices to allow students to work at their own pace.
- Materials include Instructional Modules, Interactivities, and other digital technology components that are purposefully designed and align with the learning objectives as outlined in the TEKS. EduSmart's digital platform is easy to use, navigate, and engage In a way that does not distract from the learning objective that students must show mastery.
- Materials include Instructional Modules, Interactivities, and other digital technology components that are purposefully designed and align with the learning objectives as outlined in the TEKS.
- EduSmart's digital platform allows for easy navigation, which supports students in a way that does not distract from the learning objective and supports students who must show mastery.For example, the digital curriculum includes technology and tools to enhance student learning through features, such as gamified activities, virtual simulations, and engaging reading selections. For example, digital technology and tools can be used in whole group settings by being projected on the screen or on individual devices to allow students to work at their own pace.

- The Implementation Strategies document makes suggestions for whole group, small group, or individual work for each of the digital learning tools available in the materials. For example, they have a variety of interactive materials, including their reviews, interactivities, and simulations, that are engaging and support student learning. Materials provide integrated digital technology and tools that support student learning and engagement. For example, digital versions of articles that contain novel content applied to science concepts that students can read and interact with questions on their computers. Students have options when reading to change the font size, contrast, and zoom in to make the reader easier to understand, see, and read.

Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content.

- The materials provide activities and other digital technology that allow students to collect, manipulate, and analyze data as outlined in the science and engineering practices TEKS. For example, materials include digital technology materials to help students better understand and apply the material they are learning. Students can collect, manipulate, and analyze data as outlined in the science and engineering practices TEKS. EduSmart carefully designs digital technology to be purposeful, relevant, and aligned with learning objectives as outlined in the TEKS. The use of digital technology allows students to make connections to recurring themes and concepts through real-world applications.
- Materials integrate digital technology in ways that support student engagement with the science and engineering practices and grade-level content. The materials provide opportunities for students to engage in online simulations and virtual lab experiments to practice the science and engineering practices of conducting investigations, collecting and organizing data, and communicating their findings like scientists. Materials also integrate digital technology in ways that support student engagement with recurring themes and concepts. According to the EduSmart Implementation Strategies document, students are exposed to the recurring themes and concepts, along with grade-level content, in the science investigation activities, instruction module companions, readers, and anchoring phenomenon. Suggested recurring themes and concepts for each unit are included in the grade-level scope and sequence.
- Materials include specific science and engineering and recurring themes and concepts sections on their website that provide online investigation activities, hands-on activities, and instructional modules that are engaging and address these standards. Within grade-level content, they have the same activities that create the same engagement and digital technology integration.
- The Implementation Strategies Guide states: “EduSmart offers instructional materials specifically tailored to science and engineering practices. These activities are found in the title titled ‘Scientific and Engineering Practices.’ To assist teachers with the integration of the SEPS into the context of the content being taught, suggested SEPS are listed on the scope and sequence for each content standard.” The guide also suggests, “Instructional modules can be used to introduce scientific and engineering practices or to refer to skills.”
- The Interactives are gamified activities that are used to review SEPs and RTCs. The activities are hands-on activities designed to facilitate student’s knowledge and experiences with the science and engineering practices.”

EduSmart Science Grade 7

Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate.

- EduSmart's digital content can be linked to various Learning Management Systems, which allows for easy collaboration between students to teachers and students to students. For example, students receive feedback on their assessment from the Learning Management System.
- EduSmart allows teachers to share live lessons with other teachers through the EduSmart platform workspace. EduSmart allows teachers to create live lessons and share them with students.
- EduSmart allows teachers to assign students to sub-groups to allow for more individualized instruction, and students can work collaboratively in those groups by downloading the content into other learning management systems, like Google Drive.

Materials integrate digital technology that is compatible with a variety of learning management systems.

- EduSmart's digital technology is compatible with a variety of learning management systems and technology devices. Digital technology is accessible on computers, laptops, and tablets. The digital technology is available to be shared through a variety of platforms, including both the EduSmart platform and Google Classroom.
- Materials integrate digital technology that is compatible with a variety of learning management systems. EduSmart allows “one-click” assigning of activities to Google Classroom, the EduSmart LMS, or the ability to copy URLs to paste into another LMS.
- For example, teachers can assign assignments and activities to Google Classroom through the learning management system itself, or there are links to activities that can be copy pasted. EduSmart does note when copy-pasting the assignment URL: “Your students can access the assignment via this URL. To access this URL, students will need to be logged in to EduSmart or be prepared to enter valid login credentials.”

EduSmart Science Grade 7

Indicator 9.3

Digital technology and online components are developmentally and grade-level appropriate and provide support for learning.

1	Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression.	Yes
2	Materials provide teacher guidance for the use of embedded technology to support and enhance student learning.	Yes
3	Materials are available to parents and caregivers to support student engagement with digital technology and online components.	Yes

Not Scored

The materials contain digital technology and online components that are developmentally and grade-level appropriate and provide support for learning.

Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression. Materials provide teacher guidance for the use of embedded technology to support and enhance student learning. Materials are available to parents and caregivers to support student engagement with digital technology and online components.

Evidence includes but is not limited to:

Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression.

- EduSmart designs digital technology and online components to align with the scope and approach to science knowledge and skills progression as outlined in the TEKS. Simulations and interactives provide students an opportunity to build their scientific inquiry skills through well-defined skill progression. EduSmart's digital technology and online components also support grade-level learning objectives of the materials as outlined in the TEKS and are grade-level appropriate. For example, simulations and interactives provide students the opportunity to build their scientific inquiry skills through well-defined skill progression. Interactivities and Simulations provide some level of guidance to help students gather relevant information, but also enough freedom for students to explore some of their ideas. These activities provide students opportunities to conduct virtual experiments, gather and collect data, and communicate their findings like a real scientist.

Materials provide teacher guidance for the use of embedded technology to support and enhance student learning.

- The materials provide an Implementation Strategies document that guides teachers on the use of embedded technology to support and enhance student learning. This information can guide the teacher on how EduSmart components can be used in their instruction. The Implementation Strategies document identifies where some of the activities can be completed digitally or on

paper. For example, portfolios can be either electronic or paper to keep track of student work, especially as they work through engineering design challenges. For example, the materials indicate that the Instructional Module Companions "... can be used for digital or printed interactive journal components."

- Materials include an Implementation Strategies Guide for teachers to use for guidance for the use of embedded technology to support and enhance student learning. For example, the guide states that the instructional modules: "Can be used whole group or assigned virtually for small groups or individuals." and "When assigned virtually, the student must interact with the video after each break to continue the video to reduce student inattention."
- Additionally, materials provide an Implementation Strategies Guide for teachers to use for guidance for the use of embedded technology to support and enhance student learning. For example, the guide states that the science investigation activities "... are virtual lab simulations that incorporate recurring themes and concepts with science and engineering practices such as asking questions, analyzing and interpreting data, and designing solutions." It also says "Data can be collected and analyzed in traditional lab format or Claim, Evidence, Reasoning format." Furthermore, Materials provide an Implementation Strategies Guide for teachers that provides guidance for using embedded technology to support and enhance student learning. For example, the guide states that for quizzes, "Teachers have the autonomy to determine the use of the quizzes and the mode they are assigned. The quizzes can be printed, shown in present mode, or assigned online."

Materials are available to parents and caregivers to support student engagement with digital technology and online components.

- Materials include a caregiver letter available to parents and caregivers to support student engagement with their digital platform and online components. The communication letter gives guidance on how to support parents and caregivers with student engagement with EduSmart's digital platform and online components. It introduces guardians to the digital curriculum, and it can be used to support learning from home. The Teacher Communication Guide suggests ways for teachers to help provide support to parents and caregivers to support student engagement with digital technology and online components.
- EduSmart's learning platform is accessible regardless of physical location to allow students to access materials at home. Parents and caregivers have the opportunity to access the content with their child to support student engagement. Materials are available to parents and caregivers to support student engagement by using the learning platform to track their progress and provide support when needed on identified concepts.