Savvas Learning Texas Experience Science Grade 4

Savvas Learning Texas Experience Science Grade 4 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 3	100%	100%	100%	100%
Grade 4	100%	100%	100%	100%
Grade 5	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 teacher guidance to support student reasoning and communication skills.

Section 6. Progress Monitoring

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

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- 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 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 and plan and conduct classroom, laboratory, and field investigations and to 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 and plan and conduct classroom, laboratory, and field investigations and to 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.

- The materials provide multiple opportunities for students to interact with grade-level appropriate scientific and engineering practices (SEPs) as outlined in the TEKS. Within the Explore portion of an Experience (lesson), a green section titled *Thinking Like A Scientist* and a blue section titled *Mastering Scientific and Engineering Practices* advise teachers on how best to support students with the development and practice of the science and engineering practices within the lesson.
- Students experience age-appropriate phenomena to engage them in using the SEPs. For example, in Topic (unit) 7, *Organisms*, the anchoring phenomenon video asks, "Why does a plant have a growth spurt?" The accompanying student anchoring phenomenon activity

requires students to watch a video and complete a Claims, Evidence, and Reasoning (CER) writing activity to explain their thinking.

- The materials provide students opportunities to practice and demonstrate mastery of grade-level appropriate scientific and engineering practices. In each topic, STEAM Station Activity Cards provide students with the development, practice, and mastery of grade-level SEPs outlined in the TEKS. For example, within Topic 4, *Earth and Space*, Experience 2, *Moon Phases*, students define, build and test, collect data, analyze, and then redesign “Moon Phase Models." Students are given opportunities to ask questions, use evidence from investigations and collaboration, and redevelop a design.

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

- The Recurring Themes and Concepts (RTCs) are listed in the Table of Contents and spotlighted within each topic. For example, in Topic 5, *Patterns on Earth*, the Teacher Overview specifies targeted RTCs, such as *identify and use patterns*, *investigate cause and effect,* and *use scale and proportion.* Embedded throughout the course, the RTCs allow students multiple opportunities to make connections between and within overarching concepts.
- Each topic contains multiple student activities to support and connect the RTCs. For example, in Topic 3, Experience 1, the STEAM Station Activity allows students to practice identifying cause and effect relationships as they answer the question, “How does energy travel through waves?”
- The materials guide students to practice and make connections between and within overarching concepts and recurring themes. For example, the materials include student worksheets titled "Plan and Conduct an Investigation," "Use Models to Analyze Data," and "Recurring Themes and Concepts." For teachers, there is an editable slide presentation for direct instruction on recurring themes and overarching concepts.

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

- The lessons within each topic are strategically and systematically presented in a 5E model structure and include an anchoring phenomenon and an engage phenomenon. The phenomena are revisited during the 5E model lesson cycle and Topic Wrap-Up. In the section titled *Getting Started with Texas Experience Science,* the materials include 5E model history and research. Also, the TEKS progression in each Topic Overview shows the vertical alignment and development of the TEKS for the current grade level, the TEKS connections to the previous grade level, and how the current grade-level content TEKS establishes a foundation for the upcoming grade level.
- Within each topic, materials such as anchor charts and literacy and vocabulary activities systematically build students' knowledge and investigating skills to support content TEKS. For example, Topic 2, *Force and Motion*, opens with an anchoring phenomenon video about how objects float in the air; then, students explore with a literacy station about non-contact forces and participate in a vocabulary and STEAM activity about forces.
- The hands-on stations and activities located within the Engage, Explore, and Elaborate sections of each lesson develop and broaden students’ content knowledge and skills. For example, to activate student learning, Topic 4, Experience 1, begins with an everyday phenomenon question asking, “Why do some trees in Texas change during the year?” Next, students explore a hands-on station and a literacy station to connect their new learning. Afterward, students revisit the

anchoring phenomenon to see how their thinking changes. Lastly, students participate in a walkSTEAM activity where they explore the current season in their community through a walking tour.

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

- The materials contain sufficient opportunities for students to ask questions, conduct investigations, and engage in problem-solving, as evident through the 5E lesson cycle. The Explore section contains *Before the Stations* (examples of activating prior knowledge), *During the Stations* (hands-on activity), and *After the Stations* (literacy connections). The Explain section of the 5E lesson cycle provides teachers with a key ideas presentation and video. The Elaboration section contains student opportunities to practice new skills through STEAM activities and Physics Education Technology (PhET) Simulations. Each topic contains a Wrap-Up section with a Topic Reader to engage English Language Arts and Reading (ELAR) connections and Vocabulary Games to connect the science vocabulary. The Evaluation section allows teachers to revisit the phenomenon and measure student understanding of the introduced content.
- The materials include opportunities for students to engage in problem-solving to make connections across disciplines and develop an understanding of science concepts. In Topic 1, Experience 3, STEAM Station Activity, students determine which materials build the strongest tower that will support the weight of paper clips. Students design a tower and explain how they used each material. Next, students redesign their tower to support more weight. Afterward, in the literacy station, students explore the Read About It section titled *Combined Materials*. Then they identify building materials used in everyday life.
- The materials provide sufficient opportunities for students to ask questions and utilize a variety of hands-on learning activities. Each experience begins with a question that is relatable to students' lives. Each topic provides multiple hands-on learning events, including a STEAM activity and an online gaming component. Students are provided with opportunities to make at-home learning connections. For example, a community support section titled *Take It Local*, where students learn through investigating traits of plants around campus, is included in Topic 7, Experience 2.

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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 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.

- The materials use phenomena as a central anchor that drives student learning across grade-level content. The phenomena within the materials are composed of two parts: Anchoring Phenomena, which introduce students to global issues, and Everyday Phenomena, which prompt students to observe, connect, and explore their own backyards. Anchoring Phenomena launch topics (units), whereas Everyday Phenomena occur during the Engage section of each experience (lesson).
- The materials use relevant phenomena from Big Bend, the Hill Country, the Panhandle, the Gulf Coast, and the Piney Woods for students to experience and investigate. An anchoring phenomenon opens each topic. For example, Topic 7, *Organisms*, opens with the question, "Why does a plant have a growth spurt?" Within the Launch section, students watch a video and complete an activity about the phenomenon. Instructional tips are provided for the teacher to connect this phenomenon to similar ones previously experienced by students. Each topic embeds an Everyday Phenomenon within the Engage portion of the lesson through photos and an activity. For example, the Everyday Phenomenon for Topic 7, Experience 1, is a photo of an

agave plant and a prickly pear cactus. Students are asked, “What features do you observe on these plants?” Later in the topic, the Literacy Station Card Activity uses a photo of an armadillo to model for students how inherited and acquired traits help organisms survive. Students then complete an activity about structure and function using knowledge of their favorite animal.

- The materials use phenomena as a central anchor that drives student learning throughout each component of a 5E lesson cycle. In Topic 4, *Earth and Space,* the anchoring phenomenon asks, “How can you predict moon patterns?” Students progress to the Engage portion of the lesson, where they experience an Everyday Phenomenon about why the moon looks different at night. During the Explore portion, students conduct a hands-on station activity where they make observations and collect data to identify changes in the moon’s appearance over 30 days. The Literacy Station Activity guides students to synthesize information about the pattern of moon phases. An option to extend the experience is provided with a STEAM activity where students design and build a moon phase model. Lastly, students revisit the anchoring phenomena to track how their initial thinking changed.

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

- The materials include opportunities to activate students' prior knowledge throughout all topics (units). Each topic opens with an anchoring phenomenon activity enabling students to use prior knowledge as evidence for the model. For example, Topic 5, Experience 1, opens with the phenomenon question, “What happens to the water in open and closed containers?” then progresses into students modeling the water cycle and concludes with a walkSTEAM activity where students note personal examples of the Sun interacting in the water cycle.
- The materials provide multiple entry points to the learning phenomena and include related phenomena that can be used as an alternative to introducing the lesson. For example, Topic 7, *Organisms*, contains an Everyday Phenomenon photo with Texas desert plants. For students with little or no prior knowledge of the agave plant, the teacher may choose to introduce the lesson by using phenomena related to bird beaks or even hummingbirds.
- The Explore portion of each lesson contains an “Address Prior Knowledge” teacher section. Topic 1, *Matter*, leverages students' prior knowledge about properties of matter. Furthermore, each Topic Wrap-Up revisits the unit anchoring phenomenon, where students must use their prior knowledge to complete the anchoring phenomenon activity. In Topic 5, *Patterns on Earth*, students are asked, “How can sunlight power devices?” The materials clearly leverage students’ prior knowledge and include class discussions centered around an anchor chart which is often revisited throughout each topic.

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

- The Topic Overview details for the teacher the anchoring phenomenon question, which students answer during the experiences while progressing through a topic. For example, in Topic 2, *Force and Motion*, students answer the anchoring phenomenon question, “What happens when skateboards roll across different surfaces?"
- Each topic includes scripting for the teacher for the Anchoring Phenomenon section. For example, Topic 2, *Forces*, contains scripting for the teacher for Launch the Anchoring Phenomenon, "What did you notice about how skateboards roll?” The anchoring phenomenon

video includes the question, “What happens when the skateboard rolls across different surfaces?”

- Phenomena and engineering problems are garnered in an engaging video for students and teachers to preview the topic. In addition, the materials include teacher preparation videos and science concept background videos outlining the concepts and goals for each topic. For example, in Topic 3, *Energy*, the teacher is directed to watch the Teacher Background Video*, Energy,* for background knowledge of the unit content. A bulleted list of key concepts to support instruction is included as well.

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Indicator 3.1

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

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. The materials are designed to systematically, coherently, and accurately build knowledge .

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 an 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.

- Designed to build knowledge systematically, coherently, and accurately, the materials increase in complexity within and across units and grade levels. The materials include a TEKS Vertical Alignment Grades 3-5 document that represents the TEKS alignment for grades 3, 4, and 5 science content TEKS, the Science and Engineering Practices TEKS (SEPs), and the Recurring Themes and Concepts TEKS (RTCs). In grade 4, students identify conductors and insulators of thermal and electrical energy. In the previous grade, students plan and conduct investigations that demonstrate how the speed of an object is related to its mechanical energy. In grade 5, students demonstrate that electrical energy in complete circuits can be transformed into motion, light, sound, or thermal energy and identify the requirements for a functioning electrical circuit.
- Evidence of horizontal alignment within the grade-level materials is present as well. The materials include a detailed TEKS Grade 4 Correlation document, outlining the location of all TEKS and showing alignment across Topics (units). For instance, in Experience 1 of Topic 2, *Force and Motion*, students explore contact forces. As students progress through the Explore sections in this unit, they apply prior knowledge to dig deeper into their understanding of forces as pushes and pulls that can make things move, change direction, or change shape. These grade 4

TEKS concepts vertically align with grade 5's Topic 2, *Forces and Motion*, Experience 1, *Patterns of Motion.*

- Within each Topic Overview, there is a TEKS Progression header with sub-sections labeled *Look Back*, *In This Topic*, and *Look Ahead*. This section of the materials focuses solely on Topic vertical TEKS alignment for the previous grade level and current grade level.

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

- The materials use a 5E lesson cycle that provides teachers with multiple opportunities to scaffold student learning and deepen conceptual understanding as students experience a Topic anchor phenomenon which sets the stage for the unit Storyline. Additionally, lessons are launched with a related everyday phenomenon and then progress through multiple investigations during the Explore stage. During the Elaborate phase, students apply their acquired knowledge to a new challenge or situation. Lastly, the unit concludes with a Topic Wrap-Up, enabling students to revisit the phenomena and adjust their thinking and ideas about the introduced concepts.
- For example, in Topic 1, *Matter*, the lesson launches with the everyday phenomenon question, "How can you sort different metals?" During the Explore portion of the Experience, students make robust connections to the introduced concepts through multiple investigations. Finally, students revisit their ideas and questions about the initial everyday phenomenon and apply what they have learned in the stations. Differentiated Instruction in Topic 2, *Force and Motion*, is provided for Experience 2, *Noncontact Forces.* For students ready for a challenge, the Teacher's Guide suggests having them apply their observations from the STEAM Station to real-world situations. Students are encouraged to draw diagrams showing how magnets could be used to control the movement of a monorail or rollercoaster car. Furthermore, guidance is provided for mastering scientific and engineering practices. For example, in Topic 2, *Force and Motion*, Experience 2, *Noncontact Force*s, scripting for *Explain Using Data* prompts the teacher to ask the following questions while students complete the STEAM Station activity: "What observations will you make? What tools will you use? How will you record your data?" This scaffolding of learning within each Experience allows students to utilize targeted SEPs TEKS, adjust or deepen their content understanding, relate to specific RTC TEKS, and connect their experiences to the everyday lesson phenomena.

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

- The Teacher's Guide materials include a scope and sequence which represents the grade-level science content, the science and engineering practices skills, the recurring themes and concepts, and the English Language Proficiency Skills (ELPS) as outlined in the TEKS Grade 4 Correlation chart.
- The TEKS Vertical Alignment document located in the *Getting Started with Texas Experience Science* matter, along with the Topic Overview pages in the Teacher's Guide clearly present grade-specific core science concepts, the recurring themes and concepts, and the science and engineering practices stated in the TEKS. This information is also listed in the margins of the Teacher Guide on the page with the corresponding activity. For example, in Topic 6, *Interactions In Ecosystems*, one of the targeted SEPs TEKS focuses on collecting observations as evidence. An RTC TEKS for Topic 6, *Interactions in Ecosystems*, is to identify and investigate cause-and-effect

relationships to explain scientific phenomena or analyze problems. Furthermore, question prompts and teacher suggestions are included to support the TEKS during the hands-on stations.

- Additionally, each unit contains a Topic Overview that provides teachers with a Teacher Background video and a Teacher Prep video for grade-level instruction of core science concepts, recurring themes and concepts (RTCs), and the science and engineering practices (SEPs). Each Topic Overview also includes a TEKS Progression section with three sub-sections titled, *Look Back*, *In This Topic*, and *Look Ahead* which list vertically aligned TEKS associated with the unit. Each Topic Overview also displays targeted TEKS for SEPs, RTC, and ELPS, as well as any related English Language Arts (ELPS) TEKS addressed in the unit.

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

- Each Topic presents opportunities for students to demonstrate mastery of materials within the boundaries of the grade-level TEKS. For example, the first lesson of Topic 1, Matter, contains an Everyday Phenomenon Video Exit Ticket question, “What is one way to classify metals?” As students enter into the Explore portion of the lesson cycle, the Literacy Station Activity provides an opportunity for students to demonstrate their mastery of the material by answering the question, “How can we classify matter?” The Evaluate portion of the lesson contains a quiz to measure mastery of student material. A Wrap-Up Topic assessment is included at the end of this unit. The unit assessment questions and exit tickets are within the boundaries of the main concepts included in Topic 1, *Matter*, and they align with the grade-level TEKS.
- In addition, the materials provide a scope and sequence document outlining where learning targets are introduced, developed, and mastered within the program. Each Experience contains an At-A-Glance page that includes learning objectives. For example, in Experience 1 of Topic 1, *Matter*, the student learning objective is to measure, test, and record the physical properties of *matter*. Objectives and Areas of Focus are provided for each portion of the 5E lesson within this Experience.
- The vertical alignment of the TEKS clearly defines the boundaries for each grade level. For example, fourth-grade students learn how to investigate and identify the transfer of energy of objects in motion. Identifying forms of energy is taught in third grade, whereas grade 5 students investigate and describe the flow of energy in systems. Throughout each grade-level Experience, student exit tickets are embedded to show mastery in the Engage, Explore, and Explain sections of the 5E learning cycle. A quiz is provided at the end of each Experience. The Topic Wrap-Up includes an editable unit test with options to incorporate multiple choice and short-constructed response questions to assess mastery of the energy concepts.

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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 partially 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 that 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.

- The materials include guiding documents to support teachers' understanding of how new learning connects to previous and future learning across grade levels. The scope and sequence display the vertical alignment of grade-level content. Furthermore, each unit includes a Topic Overview which lists all TEKS covered in the lesson (content, science and engineering practices, recurring themes and concepts, English Language Proficiency Skills, and English Language Arts and Reading-if applicable). The scripting is organized into easy-to-follow sections titled, *Look Back*, *In This Topic*, and *Look Ahead*. For example, Topic 3, *Energy*, includes TEKS for all categories, showing both vertical and horizontal content TEKS support for teachers in understanding grade-level content. The TEKS progression shows how the topic connects to what the students learned in the previous grade and looks ahead to see the students' connection for the next grade level.
- The materials provide a section to the Teacher's Guides of the Spiraling Activities titled "Content Progressions Within and Across Grade Levels" that explains how content and concepts progress within and across grade levels. For example, the grade 4, Topic 5 "Content Progressions Within and Across Grade Levels" guides teachers with explicit statements about how the content in grade 3 as well as in Topics 1, 2, and 3 provide a foundation for the content in Topic 5 as well as

how the content in Topic 5 will provide a foundation for what students will be learning in grade 5.

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.

- The materials include a Teacher Background section and a Teacher Prep section within the Topic Overview Teacher eText for each Topic (unit). The Teacher Background section contains a bulleted list of key concepts and a video to support teacher content knowledge for a Topic. For example, Topic 4, *Earth and Space*, explains the definitions for the following terms: *season*, *Earth's axis*, and *moon phases*. The video also reviews previous grade-level concepts which support the current grade-level Topic content. The videos in the Teacher Prep section provide teachers with lesson guidance and management strategies.
- The materials provide a Common Misconceptions section for teachers in the Overview section of each Topic. For example, in Topic 2, *Force and Motion*, the teacher's scripting shares common student misconceptions including the idea, “magnets act on all metals.” The Misconceptions section also contains teacher guidance to help correct student misbeliefs.

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

- The materials provide the intent and purpose of the program’s instructional design in the *Designed for Texas-Engage in Dynamic Experiences:* Grades 3-5 document. This document explains the program and its components, including phenomena-based learning and the rationale for using the 5E model to scaffold instruction and build student understanding.
- For example, the Phenomena Explorations are designed to introduce students to broader global issues and prompt students to observe, connect, explore, and apply their understanding of everyday phenomena to develop solutions. Teacher guidance for leveraging phenomena and supporting student sense-making is included on the Launch Page of each Topic.
- The materials also include a Research-Based Pedagogy document that explains the program’s layout and benefits. For example, the 5E model includes the following stages: Engage, Explore, Explain, Elaborate, and Evaluate. The materials also highlight student benefits of the program’s design such as student-centered, active learning, conceptual understanding, and real-world connections.
- In summary, the *Designed for Texas-Engage in Dynamic Experiences:* Grades 3-5 document explicitly details the purpose behind all program materials. Clear explanations show student connections to literacy, collaboration, hands-on and engaging learning through stations, reading, vocabulary, phenomenon exploration, digital resources, and STAAR assessment success.

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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 the 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 na understanding of scientific concepts.. 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.

- The materials contain multiple opportunities for students to make sense of science concepts through reading, writing, thinking, and acting as scientists and engineers. The *Designed for Texas Grade 3-5* document states the Explain/Elaborate sections of each Topic include a Key Ideas Presentation with teacher instructions to, "Discuss students' data from their investigation to build students' sense-making." For example, Topic 4, *Earth and Space*, Experience 2, *Moon Phases*, instructs the teacher to open the Key Ideas Presentation and check for student sense-making. Students share what they learned in the stations.
- In Topic 1, *Matter*, students watch and respond to a video of someone shaping molten glass. The teacher leads a discussion about what students think is happening in the video and asks the following questions: "What are the physical properties of glass? How can the shape of glass be changed?" Using a think-pair-share strategy, students work with a partner and complete the claim-evidence-reasoning framework to explain how glass is made. Through hands-on activities,

students act like scientists and revise their claim-evidence-reasoning throughout the Topic. Using an anchor chart activity, students record and organize their thoughts. Finally, the teacher presents students with Topic Readers and encourages them to read high-interest books or select titles to answer the remaining questions they have about the science topic.

- Within Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, students experience a literacy station where they discuss current knowledge about contact forces, respond to four questions through writing, and then apply knowledge through writing, drawing, and discussing magnetism and gravity. In Topic 3, *Energy*, Experience 1, *Transfer of Energy*, students explore a variety of phenomena that demonstrate the transfer of energy such as a moving pinball, a vibrating tuning fork, and a plucked guitar string. Students think and act like scientists while observing the phenomena, and use the writing companion to record questions they want to explore. Students then watch a video about the phenomena and complete a recording activity. Students also incorporate reading throughout the lesson as they explore the various phenomena.

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

- The materials consistently embed multiple opportunities for students to engage with grade-level appropriate scientific texts through purposeful and targeted activities such as vocabulary-related tasks, Topic Readers, and Steam and Literacy Stations. For example, in Topic 6, *Interactions in Ecosystems,* Experience 1, *Organisms in Ecosystems*, students read about how plants capture energy and matter for a hands-on experiment, and they read again during a literacy station while looking for important details *to help understand key ideas*.
- In Topic 2, *Force and Motion*, students investigate how friction can affect an object in motion. Afterward, in the Literacy station activity, students use the Read About It section to practice evaluating details and synthesizing information to create new understanding of contact forces.
- Furthermore, each Topic Overview includes a Connect to Literacy section for teachers to share with students. In Topic 3, *Energy*, a suggested topic book is *Energy and Heat* by Kathy Furgang, and *Conductors and Insulators: It's Electric!* by Chris Oxlade, a recommended trade book. Additional book titles are listed and can be used in whole groups, small groups, or as enrichment.
- The Table of Contents includes a resource to choose Topic Readers for additional information. Teachers can filter and choose books based on specific standards. For example, a book title search for the Earth and space standard 4.9B returns four additional titles: *Earth and Space, Read About It: Seasons, Earth's Patterns and Space,* and *Predicting Patterns*.

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.

- The materials provide multiple opportunities throughout each lesson cycle for students to use both written and graphic modes of communication to develop and display an understanding of scientific concepts. For example, Topic 7, *Organisms*, contains readers for student engagement, as well as graphic organizers to assist students with understanding scientific concepts. Written communication and graphic modes are evident in the provided student exit tickets. In the Evaluate section of Topic 7, *Organisms*, students complete an exit ticket by

writing a sentence to describe one of the plant structures observed in the photo. Students then write short constructed responses to answer questions on the Evaluate Quiz.

- During the Explore section of Topic 2, *Force and Motion*, Experience 1, *Contact Forces*, students record the distance traveled by model cars on ramps of different surface materials and draw conclusions based on their observations. In the Key Ideas Video section, students complete an exit ticket by drawing a picture of a game or other activity and labeling the contact forces.
- In Topic 3, *Energy*, Experience 1, *Transfer of Energy*, students view an everyday phenomenon video and record questions about the transfer of energy, as well as what ideas they want to investigate. In the Explore section of the lesson, students experiment to explore the transfer of energy by dropping objects of various sizes and observing the waves which cause the movement of a toy boat. Students record observations and develop explanations for their observations. In the next lesson, students explore the Read About It section on Conductors and Insulators. Students then write a summary of the reading that includes the main idea.

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.

- Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering practices by utilizing the 5E lesson model and allowing students to go through the learning process as a scientist. Productive struggle is present in the design models where students discuss design strengths and weaknesses and have opportunities to make adjustments to their design. Collaboration and design thinking are evident in the STEAM activities as students work with their design team to create a prototype. For example, in Topic 7, *Organisms*, students experience the engineering design process as they build an artificial limb during the STEAM Activity. The materials also create transfer opportunities for students to apply their science knowledge to new situations. For example, students are provided time to use what they learned about structure and function to improve their artificial limb design.
- Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering practices in the STEAM activities that relate to the Thinking Like a Scientist section found in each Topic. For example, in Topic 5, *Patterns on Earth*, Experience 2, *Slow Changes to Earth*, students investigate the problems of erosion. Using sand, dirt, and a metal tray, they test their design with water and evaluate the design. Next, students describe a real-life situation in which their design could reduce erosion. The Thinking Like a Scientist section enables students to list the conditions that should be the same between attempts to help students learn how to plan and conduct descriptive investigations.
- Experiences include hands-on station cards. These cards allow students to engage in phenomena and the engineering design process, make sense of the concept, and productively struggle to learn. For example, in Topic 6, *Interactions in Ecosystems*, Experience 1, *Organisms in Ecosystems*, students explore what plants need to live and grow. They predict how light and water will affect growth, conduct an investigation, record data, and provide an explanation for the outcome.

Savvas Learning Texas Experience Science Grade 4

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. 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.

- The materials prompt students to use evidence and support their hypotheses and claims as evident in Topic 3, *Energy*, Experience 2, *Conductors and Insulators*. In this lesson's Hands-On Station activity, students work to answer the question, "How can we stop an ice cube from melting?" They choose three materials to insulate an ice cube and predict which material will be the best insulator. To explain their reasoning, students create a data table of their evidence from the investigation and draw conclusions by identifying the conductors of thermal energy and determining what the best conductors have in common.
- The materials provide the opportunity for students to use evidence for support through the Thinking Like a Scientist section of the Topics. For example, in Topic 4, *Earth and Space*, Experience 2, *Moon Phases*, students collect both observations and measurements as evidence. Another example is found in the WalkSTEM Activity located in Topic 4, *Earth and Space*, Experience 1, *Seasons*, where students cite evidence they collected to confirm the season. This action prompts students to support their claims made throughout the activity.
- The materials provide opportunities for students to develop evidence to support their hypotheses and claims. For example, in Topic 1, *Matter*, the Anchoring Phenomenon video asks, "How did the glass get this shape?" The materials direct the teacher to prompt students to use

evidence from the video, personal experiences, and prior knowledge as sources to support their explanation for how the glass gets its shape. The students construct a claim about what they believe is happening in the video. Next, the teacher shows students how to use evidence to support their claims. The teacher guide includes prompts to assist in facilitating the process. Students revise their Claim-Evidence-Reasoning framework throughout the unit. The teacher guidance also includes examples of student claims, student evidence, and student reasoning.

- Each Topic Launch includes an Anchoring Phenomenon Activity. In Topic 5, *Patterns on Earth*, students are prompted with the question, "How can sunlight power devices?" In journals, students record their observations, provide facts and data to support their reasoning, and add evidence from Experiences to justify their claims.

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

- The materials include embedded opportunities to develop and use science vocabulary in context as evidenced in Topic 2, *Force and Motion*. The Vocabulary section asks students to, "Turn to a partner and compare your lists. Discuss the definitions of words you know. Choose a word you discussed and use it in a sentence, and Draw a picture that describes one vocabulary word you discussed with your partner. Label your drawing." Another example occurs In the Literacy Station Activity in Topic 3, *Energy*, Experience 2, *Conductors and Insulators*. After the Key Presentation, students respond to the following prompt for thermal conductors and insulators: "Explain why we use oven mitts to remove metal pans from a hot oven. Use the terms conductor and insulator and identify examples of each."
- There are many embedded opportunities for students to develop and utilize scientific vocabulary in context throughout the Topics. Each Topic begins with Vocabulary in the Launch section. Vocabulary cards provide the Topic vocabulary words, along with a picture and definition. The cards are used as an introduction and referenced throughout the unit's stations. The Vocabulary Context section located in the Explore portion of the lesson guides students to develop and utilize scientific vocabulary. For example, in Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, students provide definitions for the vocabulary word pattern and use it in a sentence to describe an observation they made during station activities.
- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience in which students can contextualize new terms. For example, in Topic 1, *Matter*, students utilize the vocabulary activity cards after they complete the hands-on explore station. The Teacher Guide prompts the teacher to ask the students to craft definitions for the words *magnetism*, *relative density*, and *mass*. The materials also present scientific vocabulary using multiple representations. For example, in Topic 1, *Matter*, Literacy Station Activity, students read grade-level appropriate text with embedded vocabulary while studying how matter is classified. Materials present vocabulary activity cards with clear photographs that include definitions that use student-friendly language.

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

- The materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level through various Topic components, including the Launch the Anchoring Phenomenon section. This section includes teacher's scripting with open-ended questions to guide the students

through the lesson. For example, Topic 5, *Patterns on Earth*, includes open-ended questions such as, “What kinds of devices are solar-powered?” and “How do you think solar-powered devices work?” After each Anchoring Phenomenon Video, the materials guide the teacher to lead a class discussion about what students think is happening in the video. This opportunity fosters student argumentation and discourse of content knowledge.

- Another example in which the materials integrate argumentation and discourse to support content knowledge appears in the Literacy Station of Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation.* Students explore the answer to the question, “What are the impacts of using natural resources?” After the Literacy Station Activity, students are instructed to reflect and respond by selecting the word that completes each sentence and then connect with a partner to list some renewable resources and nonrenewable resources used every day. Students then discuss their list with a partner and think of some ways they could conserve one of the nonrenewable resources on their list and record their ideas.
- The materials integrate argumentation and discourse to support content knowledge as evident in Cross-Curricular Activities such as in the *Tidal Energy-For or Against* activity in Topic 5, *Patterns on Earth*. Experience 3, *Natural Resources and Conservation*. Students listen to a tidal energy presentation and then decide for or against the idea of harnessing tidal energy. Students then discuss their views with a group. Scripting for the teacher prompts students to answer, “What are the main points you wish to make in support of your view?” and directs students to hold a classroom civil discourse. The teacher reminds students to include supporting evidence when it is their group’s turn to speak, to ensure every group member is provided an opportunity to speak, and everyone practices listening carefully to participants.
- The materials provide opportunities for students to develop how to engage in the practice of argumentation and discourse. For example, in Topic 2, *Force and Motion*, the materials introduce students to constructing an argument for their own interpretation of the Anchoring Phenomenon, *What happens when skateboards roll across different surfaces*? The materials provide instructional support to help students go beyond simply making claims by directing students to evidence from the video, their personal experiences, and their prior knowledge to begin to distinguish evidence from opinion.
- Each Topic Wrap-Up includes opportunities for students to present and argue their ideas in the Revisit to the Anchoring Phenomenon. In Topic 4, *Earth and Space*, students rewatch the Topic Launch Anchoring Phenomenon video of using a telescope to view the Moon. The teacher’s scripting encourages students to lead the discussion about what they observed in the video by presenting their own thoughts and building on each other's thoughts as well. Students then revisit the activity sheet provided at the beginning of the Topic.

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 provide opportunities for students to construct and present developmentally appropriate written and verbal arguments with the Anchoring Phenomenon that carries throughout the entire Topic. Students begin each Topic with an Anchoring Phenomenon Video, answer open-ended questions, and through a class discussion students explain what they observed in the video. Students then complete a phenomenon activity and stations to collect evidence and answer questions. The Explain section of each Topic provides opportunities for

students to construct arguments. For example, in Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, students demonstrate mastery of content by citing their evidence and observations based on the Key Ideas Presentation about natural resources and conservation. All Topic sections lead to a culminating activity where students apply what they learned throughout the Topic experiences and revisit ideas and question prompts.

- Each Topic Key Ideas Presentation includes activities that demonstrate understanding and application of the Everyday Phenomenon. The materials are printable for students' science notebooks. For example, in Topic 2, *Force and Motion,* Experience 2, *Noncontact Forces*, students explain how gravity and magnetism are classified as noncontact forces, draw objects attracted to a magnet, and complete a Venn diagram comparing gravity and magnetism.
- The materials provide instruction for how to construct and present a verbal or written argument to problems using evidence acquired from learning experiences. For example, in Topic 1, *Matter,* students study the phenomenon of how glass gets its shape. Using the think-pair-share strategy, students construct a Claim-Evidence-Reasoning framework to explain how glass gets its shape. The framework helps students develop reasoning to support and justify their claims. The provided teacher's scripting reminds students that their reasoning should explain how their evidence supports the claim.

Savvas Learning Texas Experience Science Grade 4

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.	M
3	Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims.	M
4	Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.	M

Meets|Score 4/4

The materials meet the criteria for this indicator. Materials provide 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 teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context. Materials provide 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 materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking in many ways. The Topic Launch includes questions for the teacher to ask, as well as responses based on possible student answers or lack of answers. For example, in Topic 4, *Earth and Motion* Launch Activity, the teacher asks, "During which season does the Northern Hemisphere point toward the Sun?" If students do not mention summer, the teacher's scripting provides follow-up questions. Furthermore, the Common Misconceptions section of the Teacher's Guide provides common student misconceptions with teacher guidance. For example, Topic 4, *Force and Motion*, lists the following misconception: "Gravity is a force exerted by a heavier object on a lighter object." The teacher is prompted to guide students to an understanding that gravitational force between two objects is always the same but it acts in opposite directions.
- The materials provide teacher guidance on anticipating student responses and the use of questioning as evidenced throughout Topic 3, *Energy*. During the Anchoring Phenomenon for this unit, students explore the questions: "What is your experience with playing pinball?" and "How does energy move in the pinball?" The teacher's scripting provides possible student answers and guidance for leading a class discussion about what students think is happening in

the video. As the Topic progresses, the materials provide teacher guidance on anticipating student responses and the use of questioning during the Before the Station portion of Explore for Experience 2, *Conductors and Insulators*. The teacher is directed to review the students' exit tickets from the Engage portion of the lesson. The teacher guides students to discuss examples of insulators. The scripting states, "Ask students what a power cord is covered with, plastic or rubber? What could happen if the cord were not covered? Sample answers are provided and include, Plastic or rubber insulate the power cord. If it were not covered, the cord would transfer electrical energy to the person touching it and shock them."

- The materials provide teachers with possible student responses to questions and tasks. For example, in the Anchor Chart Activity for Topic 1, *Matter*, the materials provide the teacher with the following questions: "What mixtures are represented in the picture?" and "What examples of solids, liquids, and gasses do you see in the picture?" The teacher's scripting also lists possible student responses and specific correct answers.
- The materials include teacher support to deepen student thinking through questioning. Each Literacy Station Activity lists teacher questions to facilitate student discussions. For example, in Topic 1, *Matter*, Experience 3, *Mixtures and Solutions*, students read about what happens to matter when it is mixed. The Teacher's Guide prompts the teacher to ask the following questions: "What are the important ideas you read about?", "What details did you find that support the important ideas?", and "How will you retell the important ideas from the text in an order that makes sense?"

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

- The materials include teacher guidance on scaffolding and supporting student understanding of scientific vocabulary as evident in the Topic 7, *Organisms*, Launch Vocabulary Preview Activity where students are asked to do the following: "Circle the words you already know, and Read the sentence and use context clues to figure out the meaning." The Launch Vocabulary Preview Activity also contains vocabulary cards, each with a science vocabulary word, its definition, and an image or picture. During Experience 2, *Physical Traits,* the teacher's scripting suggests the following: "The cards are to be cut out and used to reinforce vocabulary for the Experience through games and note-booking activities. After the Explore activities, guide students to define 'plates' and identify the context clues they used." Furthermore, the Wrap-Up section includes a Vocabulary Game for students to practice the Topic vocabulary.
- The materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context through various parts of the Topics. For example, Topic 1, *Matter*, Experience 1, *Properties of Matter*, has Vocabulary Support in the Explore part of the lesson. The materials guide the teacher to ask students to craft definitions for the terms *magnetism*, r*elative density*, and *mass*, answer which term most closely relates to sink or float, and what other words relate to sink or float. Another example of vocabulary support is the green color-coded Vocabulary Support sidebar found throughout modules in the Teacher's Guide. The sidebar support alerts teachers of opportunities to support student use of vocabulary in context. For example, the sidebar provided in Topic 1, *Matter*, Experience 3, *Mixtures and Solutions*, alerts teachers to have students respond using new vocabulary to connect what they learned in the hands-on activity to what they read at the literacy station.
- Vocabulary support is provided for each Explore section. In Topic 2, *Force and Motion*, Experience 1, *Contact Forces*, students complete the Explore activities and then share their understanding of the words *friction* and *contact force*. They identify surfaces that produce

different amounts of friction and begin to consider how friction is different from push or pull forces.

- Each Topic Launch provides vocabulary cards that are used and referenced throughout the Topic. Teachers are encouraged to use the cards for a classroom word wall and include student input when constructing the word wall. Each vocabulary card includes a word, its definition, and a picture. There is also a Vocabulary Preview Activity that students can use with the words. For example, ten vocabulary words are included In Topic 4, *Earth and Space*. During the Vocabulary Preview Activity, students "Circle the words they know, discuss with a partner, and draw a picture of one of the vocabulary words discussed." This activity is revisited at the end of the Explore section.

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

- The materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct claims, both written and verbal. For example, in Topic 3, *Energy*, Anchoring Phenomenon Activity, the teacher's guidance reminds students that the claim is a statement to answer the question, "How does energy move in pinball?" The scripting states students can use their personal experiences and prior knowledge as preliminary evidence and the reasoning should explain how the evidence supports their claim. Sample evidence may include that the video showed different types of energy as the pinball moved throughout the machine. For example, "Students' reasoning may be that energy can transfer from one object to another through motion."
- The materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims through the Science and Engineering Practices (SEPs) and Recurring Themes Preview Activity. For example, the teacher's scripting in the Communicate Explanations section explains how to guide students through developing and communicating evidence through data collection and analysis and then making a claim or argument. In the activity, students use data in a table showing how the amount of force affects the time it takes a ball to move down a ramp. Students use data to develop a solution for moving a ball down a ramp as quickly as possible. The teacher explains that scientists communicate their methods and results so that other scientists can repeat them and compare their results. Furthermore, the Everyday Phenomenon encourages student discourse by providing questions for the Everyday Phenomenon Activity. For example, Topic 4, *Earth and Space*, Experience 1, *Seasons*, students record answers about seasons.
- The materials provide the teacher with questions to support student discourse and the use of evidence in constructing written and verbal claims. For example, in Topic 1, *Matter*, Anchoring Phenomena Activity, students think-pair-share and use a Claims-Evidence-Reasoning framework to explain how the glass got its shape. The guide prompts the teacher to remind students that their reasoning should explain how the evidence supports their claim.

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

- The materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions through the Anchoring Phenomenon used to open each Topic. For example, in Topic 4, *Earth and Space*, Anchoring Phenomenon Activity, the teacher facilitates a class

discussion about students' thoughts regarding the phenomenon video using sense-making to help answer the question.

- Exit Tickets also provide opportunities for teachers to support students' thinking and finding solutions. For example, in Topic 3, *Energy*, Experience 3, *Electrical Energy and Circuits*, students answer the question, “How does energy flow through a circuit?” The teacher collects the exit tickets and refers to them throughout the Experience.
- Guidance for teachers is provided throughout each Experience. For example, during the Elaborate section of Topic 5, P*atterns on Earth*, Experience 3, *Natural Resources and Conservation*, students participate in a talkSTEM activity to share, engage, and inspire. As the class walks around school grounds, students locate sources of water. Prompted with teacher-guided questions, students then connect the water’s location with a step in the water cycle and use STEM to further their reasoning. They draw or write to explain their thinking and connections.
- The STEAM Station Activity in Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, provides another example of how the materials include teacher guidance to facilitate students’ thinking and finding solutions. In this activity, students attempt to use magnets to move a model car. The materials direct the teacher to ask probing questions, such as, “How does your drawing help you to construct your car?” and “What variable can you change?” to guide students in developing their models.

Savvas Learning Texas Experience Science Grade 4

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.	**M**
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**

Meets | Score 2/2

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

Materials include a range of formative and summative assessments and limited diagnostic assessments to assess student learning in a variety of formats. Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment. Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts and 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 include exit tickets which are used as a form of formative assessment to measure student learning and determine the next steps for instruction. Exit tickets are provided throughout the components of the 5E model in each Experience. In Topic 3, *Energy*, the teacher's scripting states, "Have students draw a picture of an electrical cable identifying where the insulator and conductor are located, and What makes a conductor?" In Topic 1, *Matter*, the teacher facilitates the Key Ideas Presentation after the students complete the Explore activities. Student volunteers share what they learned in the stations citing evidence and observations such as, "Dense objects sink, and less dense objects float." The teacher then facilitates student connections between the learned science content and the science practices they used during the lessons. Finally, the students complete an exit ticket after the Key Ideas Video.
- The materials contain a range of assessments that include formal and informal opportunities to assess student learning in a variety of formats. Summative assessments include quizzes and tests within each Topic. The Evaluate section of each Experience includes an editable quiz to assess students' mastery of concepts presented in each lesson. For example, Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, has a Topic Quiz about noncontact forces. In addition,

each Topic Wrap-Up includes a Topic test and a short constructed response test to assess mastery of concepts presented in the unit.

- Although limited, a diagnostic assessment is included in the discussions; it is embedded in each Topic with the Anchoring Phenomenon. For example, Topic 3, *Energy*, includes the Anchoring Phenomenon question, "How does energy move a pinball?" The materials guide the teacher to use open-ended prompts such as, "How do different materials affect the flow of electricity?" After watching the Anchoring Phenomenon video, the teacher assists students with the Anchor Chart Activity and asks, "How do you know when energy is being transferred?" Students work in pairs to think-pair-share for the Claim-Evidence-Reasoning (CER) framework. The Anchoring Phenomenon is then revisited after students have learned more about the concept, allowing the teacher to monitor progress and identify learning gains. The Anchoring Phenomenon is then revisited after students have learned more about the concept, allowing the teacher to monitor progress and identify learning gains. The materials provide a pre-test for each Topic which is used to gather information to monitor student progress and identify learning gains.

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

- The materials assess all student expectations over the breadth of the course and indicate which student expectations are assessed as evidenced in the Getting Started Grade 4 TEKS Correlations document. This document shows where the Scientific and Engineering Practices (SEPs) and Recurring Themes and Concepts (RTCs) are covered, as well as where the content TEKS are located in the materials. In the Overview section for Topic 2, *Force and Motion*, the TEKS Progression chart shares students will learn about force, motion, and energy. Students will also identify advantages and limitations of models, such as their size, scale, and properties, and explain how scientific discoveries and innovative solutions to problems impact science and society. The Topic Planner also includes covered science content TEKS, English Language Proficiency Standards (ELPS), and cross-content TEKS in each Experience within the Topic. For example, in Topic 1, *Matter*, Experience 1, *Properties of Matter*, students must classify and describe matter using observable physical properties, including temperature, mass, magnetism, relative density, and physical state.
- The materials include assessments that are aligned with TEKS and Curriculum standards. Student expectations are designed to measure student understanding and mastery of the concepts and skills taught in the materials. For example, the Topic 1, *Matter,* summative assessment assesses mastery of concepts presented within the Topic and includes student expectations assigned and taught during the Unit. The materials also indicate which student expectations are assessed.
- Materials assess student expectations and indicate which expectations are assessed. For example, in the Overview section for Topic 1, *Matter*, the Teacher's Guide shares TEKS progression notes and explains the student expectations covered in the Topic. The TEKS are covered throughout the Experiences in each Topic and then assessed with a Topic Test which is provided in both hard copy or digital (and editable) versions and includes both multiple-choice and open-ended responses. The digital version includes the TEKS tested, and an information icon is provided for teachers. The editable version includes the TEKS or student expectations shared in an answer key that also includes the questions, answers, and depth of knowledge (DOK) levels for each question. The materials also provide student expectations for each lesson activity. For example, within the expanded Teacher eText for Topic 5, *Patterns on Earth*, Experience 2, *Slow Changes to Earth*, the student expectations are included for the Hands-On Station Activity.

Savvas Learning Texas Experience Science Grade 4

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

- The materials include assessments that integrate scientific concepts and science and engineering practices (SEPs) with recurring themes and concepts (RTCs) as evidenced by the STEAM Activity for Topic 5, *Patterns on Earth*, Experience 2, *Slow Changes to Earth*, which includes the science and engineering practice of *collect observations*, and the recurring theme and concept of *identify and investigate cause and effect.* In this activity, students are guided to design a structure to reduce the effects of erosion. The teacher's scripting states: "Use a sloping land mass in the foil pan as a starting point for your investigation." Students use the test results to improve their design. The teacher is guided to share the following with students: "Continue to retest and improve the design until it successfully reduces erosion."
- Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts with the STEAM Station Activities found in each Topic. The STEAM Station Activities assess science and engineering practices as well as recurring themes and concepts through the five steps in the station. For example, in Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, students predict how magnets will affect the model car, make a cover for the car, determine how far the tested car and model control car interact, and record observations and evidence. The Topic assessments at the end of each unit assess mastery of presented concepts, including the scientific and engineering practices and the recurring themes and concepts covered in the Topic. For example, the quiz in Topic 5, *Patterns on Earth*, Experience 2, *Slow Changes to Earth*, includes questions that address science content for modeling and describing slow changes to Earth's surface, as well as the science and engineering practice of developing explanations and proposing solutions supported by data and models. In addition, the quiz addresses the recurring theme and concept of explaining how factors or conditions impact stability and change in objects, organisms, and systems. In Topic 5, *Patterns on Earth* unit assessment, students analyze an image to construct an argument. First, students observe an image showing how energy from coal can provide electricity to light a light bulb. Then students use what they know about fossil fuels to write a short constructed response containing one advantage and one disadvantage of using coal.

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

- The materials include assessments that require students to apply knowledge and skills to novel contexts. For example, in the STEAM and Virtual Activities in Topic 5, *Patterns on Earth*, Experience 2, *Slow Changes to Earth*, the students investigate erosion with sand, dirt, and a metal tray. They are tasked with developing a solution to reduce erosion, test their design with water, and then evaluate their design. Finally, they describe a real-life situation in which their design could be used to reduce erosion. In Topic 7, *Organisms*, Experience 1, *Plant Structures and Functions*, the students experience a virtual lab activity where they pretend to be ecologists who study grasses and the environment. They then use collected information to describe the environment in which these plants grow. Solutions to these activities require students to apply their new learning and skills to these unique situations.
- The Hands-On Station Activities allow students to use learned content from the previous lesson and apply it to the task of answering the overarching question to demonstrate knowledge and skills. For example, during Topic 3, *Energy*, Experience 2, *Conductors and Insulators*, students demonstrate their new knowledge of insulators by conducting an experiment to determine which materials are insulators of thermal energy. The Virtual Lab provides an assessment that

requires the students to apply knowledge and skills to novel contexts. For example, in Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, students determine the ideal energy source for a power plant based on the number of homes it serves.

- The materials include assessments in which students must apply knowledge and skills to a new phenomenon or problem. In Experience 3, *Energy*, the provided quiz requires students to observe a diagram of a new home's construction. Students use what they know about the properties of materials to determine how materials are combined to make a stronger, safer, longer-lasting house. Students craft a short constructive response mentioning three materials used in the building of this house. Another example occurs In Topic 7, *Organisms*, where students use what they know about organisms and adaptations to write a short constructed response to explain how the roots of the grasses shown in the diagram help these plants survive in the prairie climate.

Savvas Learning Texas Experience Science Grade 4

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. 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 include information and/or resources that guide teachers in evaluating student responses. Each Experience quiz is editable and provides an answer key with sample student responses. For example, the quiz for Topic 1, *Matter*, Experience 1, *Properties of Matter*, Quiz provides a sample student response for the short constructed response question. A rubric is also provided for teacher guidance. Furthermore, each Topic Test provides the expected correct answers. For example, the materials provide an answer key with sample student-written responses and a rubric for teacher guidance for the Topic 2, *Force and Motion,* summative assessment. Question 1 on the short constructed response test answer key lists the following suggested student responses. Students can "test the friction of a wood floor compared to a carpet by sliding an object across the floor using the same amount of force each time. The object will move farther on the floor with less friction. This is because there is less frictional force pushing back on the object." The answer key also provides a scoring rubric, the student expectation or TEKS, as well as the question's depth of knowledge (DOK).
- The materials include information and/or resources that provide guidance for evaluating student responses, as evidenced by Topic 4, *Earth and Space,* Experience 2, *Moon Phases* Quiz that provides teachers with guidance for evaluating student answers. For example, question 1 states, "Theo's class is studying moon phases. Theo makes this model of one phase of the moon.

What phase is Theo's model showing? What does this phase look like from Earth? Explain why. The answer key provides the following sample student-written response: Theo's model shows a new moon. From Earth, the new moon looks like the moon is not there. The reason it looks like this is because the moon reflects light from the sun. When the moon is between the sun and Earth, the lighted side of the moon faces away from Earth." The answer key also provides teachers with a scoring rubric and identifies the addressed student expectations or TEKS as well as the question's depth of knowledge (DOK).

- Each Experience includes a Key Ideas Presentation in the Explain and Elaborate sections that provides teachers with additional instructional guidance for evaluating student responses. For example, in Topic 7, *Organisms*, Experience 1, *Plant Structure and Function*, the teacher can click on the three dots next to the Student Key Ideas Activity Sheet that accompanies the presentation to reveal a Teacher Resources tab that, when opened, provides suggested student responses written in pink text. For example, the students predict how the coating on a leaf helps the plant survive. The provided Teacher Resource sample student response states, "I think that the plastic wrap will keep the water in the leaf because the plastic can form a tight seal around the leaf."

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.

- The materials support teacher analysis of assessment data with guidance and direction to respond to individual students' needs, as evidenced in the *Getting Started with Texas Experience*, *Navigational Support*, *Realize Assessment,* and *Data Support* documents. The materials include several videos that provide teachers with data reporting support, including a *Data Overview* video, a *Class Results by Assignment* video, and a Class Mastery by Standard video.
- Materials provide guidance and tools to support teachers in responding to data to inform instruction. Teachers can view customized progress reports by skill for each student, as well as by class and by grade level. Teachers can click on each standard to see individual student mastery as well as overall mastery. To receive guidance for each standard, teachers can click on the prompt, *Help me interpret this data.*
- Each Topic Wrap-Up includes a Topic Test Remediation document that can be used to support students who need assistance with individual TEKS mastery. The document lists certain topic content assets for use prior to and after the test, and it also contains simple, foundational questions about the content of the unit.
- For teachers who use digital assignments and assessments, the materials provide real-time analysis of data. How-to videos are provided in the *Getting Started with Texas Experience* materials, *Navigational Support*, *Realize Assessment, and Data Support.* Results are provided by standard, question, student, and by performance analysis for each individual and for class analysis. Students are automatically grouped based on the performance level selected by the teacher. Results update each time an assignment is completed. The real-time results provide a comprehensive look at each student and the class, as well as suggested resources to use for each standard.

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

- Assessment tools yield relevant information for teachers when planning instruction, intervention, and extension, as evidenced in the *Getting Started with Texas Experience*, *Navigational Support*, *Realize Assessment,* and *Data Support* documents. The materials provide teachers with data reporting support through the *Class Mastery by Standard* video, which shows how to sort student scores from high to low or low to high. The video also tells teachers where to find additional information and resources. When students complete an online test, the program assesses their concept mastery through automatically graded questions. Students who perform at a low level are automatically assigned a document to help them understand the content.
- To support instructional planning and intervention, teachers can view online assignment progress and the average score for each student in the class and use the information to create and manage small groups and assign content to targeted students. Student results update each time an online assignment is completed. These real-time results give a comprehensive look at each student's progress and also provide the teacher with suggested resources to use for each standard.
- Student responses from Virtual Lab Activities and Exit Tickets in each Topic give teachers an opportunity to adjust instruction and deliver intervention when needed because both activities provide the teacher with immediate results.
- The Topic Launch in each unit includes a readiness test (digital or an editable and printable version) that is designed to assess how prepared students are to be successful in the topic. The students' readiness test results guide the teacher in planning instruction based on what students might know/not know and how much intervention to offer. Assessed TEKS are labeled and identified by their depth of knowledge (DOK) in the Teacher Resource answer key.

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

- The materials provide resources and teacher guidance on how to leverage different activities to respond to student data. In the Teacher's Guide, the *Data Support* materials contain a Class Mastery By Standard section that provides data reports for how to group students according to assessment results based on quantitative data. The program contains a data tab with filters for teachers to search for activities to help students who need support on specific standards or concepts. For example, a teacher can filter the results for videos by TEKS and by topic.
- The English Language Proficiency Standards (ELPS) guidance provides different activities to respond to student data based on beginner, intermediate, advanced, and advanced-high students. For example, in Topic 2, *Force and Motion*, Experience 1, *Contact Forces*, students observe the Everyday Phenomenon Video of a bicycle being ridden on a variety of surfaces. Students are guided to think about what effect the surface has on the rider's motion. The ELPS differentiate this part of the lesson with the following instructional suggestions: "1) beginner-the teacher rolls the ball and asks questions such as, 'Did I push the ball?;' 2) intermediate-the teacher rolls a ball and asks what causes the ball to move/slow down; 3) advanced/advanced-high-students discuss with a partner their observations in the video and ask questions about the video demonstrating their understanding of the phenomenon."

- The materials also include guidance with a Differentiated Instruction section that teachers can use to respond to qualitative data. For example, in Topic 7, *Organisms*, Experience 2, *Life Cycles*, it is suggested the teacher model a drawing and share the important aspects with students. Also, the Hands-on Station Activities include differentiated instruction. For example, in Topic 3, *Energy*, Experience 2, *Mechanical Energy*, students plan and conduct an experiment using toy cars and ramps to draw conclusions about the ramp's height, mechanical energy, and speed of an object. Differentiated instruction includes modeling how to add data to the table, demonstrating how to use a stopwatch, modeling how to analyze the data, and allowing students to determine other variables that could be tested and recorded. Students are prompted to discuss and share with each other their ideas and explanations for how to complete the station.

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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.

- Assessments contain items that are scientifically accurate, avoid bias, and are free from errors. For example, the Topic Quiz provided for Topic 4, *Earth and Space*, Experience 2, *Moon Phases*, contains content-appropriate questions about the moon phases that are free from errors. Summative assessments include items that align with taught objectives and present grade-level content and concepts, science and engineering practices, and recurring themes and concepts in a scientifically accurate way. For example, the summative test for Topic 6, *Interactions In Ecosystems,* provides a diagram of a wetland food chain as a visual aid for students who may not be familiar with a wetland ecosystem.
- All assessment images, graphics, STAAR 2.0 tools, and information are thorough and correct, and all information is free of errors. For example, Topic 3, *Energy,* Topic Wrap-Up contains an assessment with 10 questions about the energy of falling dominoes, a game of pool, and a sorting activity about insulators and conductors. The online exams are free of errors, scientifically accurate, and avoid bias. Student results are immediately released and are also free of errors.
- The materials contain formative assessments that are scientifically accurate, avoid bias, and are free from errors, as evidenced in the Engage Exit Ticket for Topic 6, *Interactions in Ecosystems*, Experience 1, *Organisms in Ecosystems.* For this activity, students write a description of the changes they observed in the demonstration. This unit's Explore Exit Ticket directs students to answer the following question, "How does matter cycle from producers to consumers?" During the Evaluate portion of the Topic, students complete the Revisit Anchoring Phenomenon Activity

by composing a response to answer the following question, "How does matter flow from the bamboo to the panda?"

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

- The assessment tools use clear pictures and graphics that are developmentally appropriate, as evidenced in Topic 6, *Interactions in Ecosystems,* Experience 3, *Fossils,* Quiz, where question 2 provides a picture of a fossil. Question 3 has a picture of two fossils. Another example is found in Topic 3, *Energy,* Experience 2, *Mechanical Energy,* which includes a picture of magnets with colored sides to represent poles and shows magnets stuck together. Question 2 of the editable formative assessment for Topic 6, *Interactions in Ecosystems*, Experience 2, *Energy in Ecosystems,* includes a picture of a food web where students determine how energy flows through the food web. The graphics and pictures used on assessments are grade-level appropriate.
- Topic tests include pictures and graphics that are developmentally appropriate. For example, in the summative test provided for Topic 1, *Matter*, there is a graphic of two beakers of water: one with sand at the bottom and another with oil at the top. There is also a picture of a table with random items to help students answer which items a magnet will attract. Likewise, question 1 of the summative assessment for Topic 1, *Matter,* is a short constructed response and clearly shows three types of samples: rock, gold, and wood. The students explain which sample has the greatest mass by using their knowledge of the physical properties of matter. Also, the summative assessment for Topic 1, *Matter,* contains a simple illustration showing particle arrangement in solids, liquids, and gasses. All assessment pictures and graphics are grade-level appropriate and clear.

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

- Materials provide guidance to ensure consistent and accurate administration of assessment tools, as evidenced in the grading rubric located in the Assessment tool for the open-ended responses. In Topic 2, the *Force and Motion* Short Constructed Response assessment asks the following question: "What is the direction of the force on the pin? How will the pin's position change after the bowling ball hits the pin? Explain why this change happens." The scoring rubric states the following information: "1 pt-Student explains that the bowling ball applied a force to the pin, 1 pt-Student explains that the pin changed from not moving (at rest) to moving, and 1 pt-Student explains the direction of the pin's motion was the same as the direction of the force."
- Materials provide guidance to ensure consistent and accurate administration of assessment tools, as evidenced by the automatic grading ability of the materials for non-open-ended assessments such as quizzes and unit tests. The materials include detailed information that supports the teacher's understanding of assessment tools and their scoring procedures. All Experience Quizzes include answer keys with sample student responses. For example, in Topic 3, *Energy,* Experience 1, *Energy Changes* Quiz, a sample student response is provided for the short constructed response. A rubric is also provided for teacher guidance.
- Materials provide guidance to ensure consistent and accurate administration of assessment tools. Topic 7, *Organisms,* Experience 1, *Structures and Functions*, provides guidance in the Evaluate section of the planner, which shares how long the assessment should be given, provides a 15-minute timer image, and information that the test is editable and/or printable.

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

- Materials include limited guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals. The materials contain an editable version of the test so teachers can tailor it to their students' needs. For example, Topic 2, *Force and Motion,* contains an editable Wrap-Up Topic Test. A Topic Test Remediation document is provided in the Teacher eText for students who need remediation based on their summative test results.
- Materials include editable quizzes, presentations, and assignments so that teachers can adjust the test for students with accommodations, but guidance is not provided for suggestions on how to offer accommodations for assessment tools. Materials provide a partial text-to-speech feature on the web-based assessment platform, allowing students to hover over the text using a speech symbol cursor and convert the text to be read aloud. This feature currently works for only the test directions. It does not appear to read the questions and answer choices during the assessment.
- Materials include limited guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals. For example, the Evaluate section of Topic 2, *Force and Motion,* Experience 2, *Noncontact Forces,* provides accommodations such as allowing beginning-level English Language Learners (ELLs) to answer yes/no questions and advanced students to take turns describing the results of their investigation in pairs.
- The materials include an Assessment Accommodations Guide that provides teachers with guidance to adjust assessments as needed for students' learning goals. For example, the materials offer Topic tests that teachers can edit to reduce the number of questions asked while still holding true to content objective coverage for students who require accommodations.

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

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.

- Materials recommended targeted instruction to develop precursor skills necessary for students to access grade-level content, such as additional lessons for students who do not master skills on Topic assessments. Materials include recommendations to scaffold learning for students within each topic.
- Materials provide teacher guidance and scripted questions for teachers to scaffold instruction and activities to introduce, scaffold, and develop student learning and understanding of science concepts. For example, Topic 7, *Organisms*, Experience 1, *Plant Structure and Function*, provides the teacher with scaffolded prompts to guide students through instruction about what plants need to survive, assess prior knowledge through exit tickets, and conduct hands-on exploration stations by investigating and observing how a leaf's coating helps it to survive. Students then complete a literacy reading and answer questions while creating new understandings.
- Materials include a Challenge Activity in which students trap air with a leaf in a bag, make predictions and observations, and record changes. The lesson closes with a *Legends of Learning* online game, an exit ticket, and an assessment, and it includes guidance and additional activities for students who have not achieved grade-level mastery.

Materials provide enrichment activities for all levels of learners.

- Materials include STEAM activities that can be used for enrichment. For example, during the STEAM Station activity in Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, students conduct a descriptive investigation to explore the pattern of magnetism and distance. This

activity is not listed as an enrichment activity, and there are no suggestions for adjusting the activity to meet the needs of all levels of learners.

- A Challenge Activity is located within the Differentiated Instruction section of lessons. For example, Topic 4, *Earth and Space*, Experience 1, *Seasons*, includes a Challenge for students to break into groups and create a video to demonstrate an investigation and how it relates to seasons.
- The Elaborate section of Experiences contains enrichment activities such as game-based concept reviews, problem-solving exercises, and simulations to encourage further exploration of science concepts. For example, Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, provides a *Legends of Learning* online game where students explore natural resources and conservation by working with a raccoon to build structures from natural resources for a town.
- For additional enrichment activities, each Topic includes a list of suggested readings to encourage all students to make connections and learn about the Topic concepts and standards. Each Topic Launch page contains a list of Topic Readers with Lexile levels. For example, in the Launch section of Topic 1, *Matter*, the following reader titles are included: *What are Properties of Matter?* (Lexile: 580L); and *Magnets Help Us Explore* (Lexile: 910L). Students are encouraged to select books that interest them at any point before, during, or at the end of the Topic.

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

- The materials provide explicit scaffolds and guidance for just-in-time learning acceleration for all students. Exit tickets are provided at the end of each lesson. For example, Topic 6, *Interactions in Ecosystems*, Experience 3, *Fossils*, includes an exit ticket where students answer the question, "How are fossils formed?" Although not explicitly stated, the teacher can use the students' exit ticket responses to assess instruction and determine whether to stop or continue with just-in-time acceleration. The materials guide the teacher to "Collect the exit tickets and refer back to them throughout the Experience."
- The lessons include recommendations for just-in-time scaffolds to develop productive perseverance in learning at the moment. For example, materials include prompts and cues to use with learners when they are stuck on a particular task or unsure how to proceed. In the Explain portion of Topic 1, *Matter*, Experience 3, *Mixtures and Solutions*, the Key Ideas Presentation includes a notes section with useful tips and student questions to assist with teaching and accessing key ideas.
- The materials include teacher guidance with additional student support, prompts, and questioning. For example, in Topic 7, *Organisms*, Experience 2, *Physical Traits*, students are guided through how to set up the STEAM station to determine how physical traits are related to survival. Teacher reminders, student expectations, misconceptions, vocabulary support, and guiding questions are provided to assist all students in real-time learning and to help students accelerate through the lesson.

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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. The materials include a variety of research-based instructional methods that appeal to an assortment 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.

- Included within the materials is an Experience Science Research-Based Pedagogy document that describes and explains the 5E model and its benefits. “The 5E Model provides a structure for designing science lessons that engage students in the learning process” and includes student-centered activities to “increase engagement and motivation.” Each Topic contains a variety of developmentally appropriate instructional approaches. For example, Topic 5, *Patterns on Earth*, Experience 1, *Water Cycle and Weather*, opens with an Everyday Phenomenon demonstration of what happens to water in an open and closed container, then progresses through a STEAM station where students illustrate and describe the movement of water through a model of the water cycle. This activity is followed by a Hands-On Station activity, as well as a Literary Station with reading and vocabulary activity cards. Students also engage with a Key Ideas Presentation and video and end the lesson with a WalkSTEM activity to locate water on a tour of the school grounds.
- The materials engage students in the mastery of the content through a variety of developmentally appropriate instructional approaches. Each lesson opens with an everyday

phenomenon to prompt student engagement and curiosity and offer a real-world connection to Texas occurrences. For example, Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, engages students with an Everyday Phenomenon Photo to activate student thinking about how sunlight and wind in Texas provide energy.

- The materials include a Key Ideas Presentation for each lesson that can be used in whole group settings. Once downloaded, the presentation is editable and includes teacher support with guiding instructions and questions, as well as ideas to demonstrate the material in different ways through Try It Out! sections or Key Ideas Activity sections. For example, Topic 3, *Energy*, Experience 1, *Transfer of Energy*, contains a slide presentation with notes on vocabulary, question and discussion guidance, and activities to explore conductors and insulators. The slides include notes on how to build understanding using the previous slides. Small group and whole group discussions are embedded throughout the presentations.

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

- The materials engage students in a variety of flexible grouping opportunities, from whole-class discussions to cooperative learning in small groups and tasks designed for individuals, such as quizzes and tests. For example, Topic 2, *Force and Motion*, Experience 1, *Contact Forces*, includes a whole group Everyday Phenomenon activity where students identify and record how forces slow down a bike, whereas the Hands-On Station activity is designed for small group instruction and challenges students to answer the following question: “How does friction affect the distance a model car will travel?” Finally, students individually respond to an exit ticket prompt, “When friction acted on an object’s motion, what patterns did you notice?”
- The materials include a breakdown of which components can be incorporated into each lesson. Icons are used to designate if the activity is appropriate for whole groups, small groups, or individuals. For example, in Topic 1, *Matter*, activities such as the Everyday Phenomenon demonstrations, stations, and videos are recommended for whole groups or small groups. Quizzes, exit tickets, Legends of Learning vocabulary games, and literacy stations are advised for use with individuals.
- The materials support flexible grouping throughout the various 5E lesson components of each Experience. For example, the Connect to Literacy section includes titles that can be used with a whole group as a read-aloud, or the titles can be assigned for individual use or with small groups to introduce or close a Topic. The materials include either a Hands-On station or STEAM station that can be completed in small groups, a Read About It section that can be completed as an individual, as well as the tests and quizzes that can be completed as an individual. For example, in Topic 3, *Energy*, Experience 1, *Transfer of Energy*, the STEAM Station provides students an opportunity to work in small groups as they investigate the transfer of energy by dropping objects in water.

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

- The materials consistently support multiple types of practices and provide guidance and structure to achieve effective implementation throughout various parts of the Topics. The STEAM Station includes guided, collaborative, and independent student practices. For example, in Topic 2, F*orce and Motion*, Experience 2, *Noncontact Forces*, the STEAM Station contains a Guide Student Planning section with teacher instructions and guided questions such as, “What variable can you change?” There is a Guided Inquiry Procedure with steps to model the design

and build of their model car including, “Using a glue gun, attach a bottle cap to each end of the dowels.” Students then complete the STEAM station in small groups with independent work included at the end of the activity.

- The materials provide teacher guidance and structures to achieve effective implementation of multiple types of practices. For example, the Before the Stations section of each lesson states a clear purpose and learning goals for the whole group and independent practice activities. The purpose and learning goals are provided for the STEAM station in which students work collaboratively and for the Literacy Station in which students work independently. In Topic 3, *Energy,* Experience 1, *Transfer of Energy*, students work in small groups during the STEAM station to investigate the transfer of energy by dropping objects in water and observing the formation of waves. In the literacy station, students will work independently or with a partner to read about the transfer of energy in everyday life and explain how energy is transferred.
- The materials follow the 5E model and include suggestions for teacher modeling and student collaboration for the whole group and with partners. Teacher support is provided for the implementation of the practices. For example, during the Engage portion of Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, students explore the question, “How does this object float in air?” Teacher scripting provides student questions and answers, what to look for while observing students at work, and where to refer students to help prompt their thinking. For example, the teacher materials for the Engage portion of this lesson state, “Show the Everyday Phenomenon Photo. Ask, What do you notice about the metal rings? What questions do you have? What forces keep the object floating in the air? Write or draw your observations. Sample answer: Magnetism and gravity keep the object floating.”

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

- The materials represent diversity in their images and information of both people and places. Topic 4, *Earth and Space*, Experience 1, *Seasons*, includes a phenomenon about why some trees in Texas change during the year. Diversity of people and places is also evident in the Topic Readers. For example, in Topic 1, *Matter*, a student reader titled, *What are Properties of Matter?* shows scientists of various ethnicity and gender. Several Topics also have a Take It Local section, which connects the content to Texas (home). For example, Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, includes a Take It Local section titled, *Protect our Resources*, which prompts the teacher to invite a community recycling representative to tell students about what can and cannot be recycled and how to increase recycling at school. Students make a list of questions in advance and share them with the speaker in advance, if possible.
- Materials represent diverse communities using images and information that are respectful and inclusive. For example, the Hands-On Activity Station card images in Topic 3, *Energy*, Experience 1, *Contact Forces,* portray a diverse group of students. Throughout the materials, real-world examples and connections share a diversity of communities and places, including rural, urban, and suburban communities, cities, states, and countries around the world. In Topic 5, *Patterns on Earth,* the Anchoring Phenomenon contains a Texas connection to the Roadrunner Solar Farm located in Upton County in West Texas.
- The images used include a diverse group of people. Images are displayed throughout the materials and the student resource stations. For example, students of different ethnicities are displayed on the STEAM Station Cards in Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*. Teachers of different ethnicities are also displayed throughout the Experiences. Even the

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Getting Started section titled, *Authors, Contributors, and Partners*, showcases diverse people based on ethnicity, age, and educational backgrounds.

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Indicator 7.3

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

Materials include guidance for linguistic accommodations that are communicated, sequenced, and scaffolded and are 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 guidance for linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. All Topics include an ELPS Targeted Support section with accommodations for students who are learning English. For example, Topic 6, *Interactions in Ecosystems*, Experience 3, *Fossils*, guides the teacher to display the Everyday Phenomenon photo again to assist students with learning a new language. ELPS accommodations for each level include: beginner - "Ask students yes/no questions about the photo;" intermediate - "Have students take turns describing the photo using basic vocabulary;" advanced - "Ask students to use complete sentences to describe the photo;" and advanced-high - "Have student partners take turns asking and answering questions about the photo."
- The materials include visuals to help students understand and make sense of the content. Each Topic begins with an Anchoring Phenomenon that includes a photo and a video. For example, Topic 3, *Energy*, opens with an Anchoring Phenomenon video about how energy moves in pinball. Vocabulary cards display pictures with definitions, and the station cards for Literacy, STEAM, and Hands-On activities include pictures with steps. Also, there is a Key Ideas Presentation with a video located in the Explain section of each Topic.
- The materials include suggestions for linguistic accommodations in each Experience within a Topic. For example, in Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces,* differentiated ELPS supports are specifically provided for the Engage, Explore, and Evaluate lesson sections, and it includes scaffolding for the beginner level through the advanced-high level. For example, in the Explore portion of the lesson, the ELPS support guides the teacher to

have students demonstrate understanding of the text by identifying main ideas and supporting details. ELPS accommodations for each level include: beginner - “Read the text aloud to students. Ask them to circle the main idea of the passage. Then with teacher support, guide students to underline details in the text;” intermediate - “Have student pairs read aloud the sentence frames to share details of what they learned: A _____ acts on objects at a distance. A _____ acts on objects by touching them;” advanced - “Have partners work together to locate main ideas and details in the Read About It to respond to the questions in Part 2 of the Literacy Station Activity;” and advanced-high - “Have students summarize their understanding of a magnetic field and gravity in Part 3 of the Literacy Station Activity.”

- Materials suggest concrete experiences and explicit modeling as linguistic accommodations when delivering direct instruction. For example, in Topic 1, *Matter*, the ELPS Targeted Support Guide suggests the teacher model how to identify physical properties of matter by using objects in the classroom and asking students yes or no questions about the object’s properties.

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

- The materials encourage strategic use of the students' first language, as evident in Topic 3, *Energy*, Experience 3, *Electrical Energy and Circuits*. The teacher’s scripting states, “Have students use prior knowledge and experiences to demonstrate listening comprehension.” Next, the teacher models a closed circuit, and students repeat the actions, using the same terms. The materials also have a Spanish version of the resource to assist with two-way dual-language programs.
- In the materials, a *Topic School to Home Letter* is included for each Topic. This editable document can be translated into the student's home language to engage the parents in their child's learning. For example, the Launch section of Topic 1, *Matter*, contains a *Topic 1 School to Home Letter* that explains the unit objectives along with ideas to support learning at home.
- The materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English with the Anchor Chart Activity. For example, in the launch section of Topic 2, *Force and Motion*, the Anchor Chart Activity contains an editable and printable page for students to label the contact and noncontact forces in the picture and guides the teacher to direct all students to write notes in their first language.
- Getting Started materials also include an ELPS correlation guide that provides teacher guidance on how to help students master the ELPS objectives. Additionally, this document helps locate targeted ELPS within the resource.

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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.

- The materials provide information to be shared with students and caregivers about the design of the program. A provided *School-to-Home Letter* illustrates the sequence of Experiences followed in each Topic. This letter can be sent home to parents and guardians to help explain what will be taught in the program and how to keep students engaged in learning at home. For example, the Topic 2, *Force and Motion, School-to-Home Letter* explains that in Experience 1, *Contact Forces*, students investigate forces that act on objects through direct contact. Next, in Experience 2, *Noncontact Forces*, students explore forces that act on an object at a distance.
- The materials provide information to be shared with students and caregivers about the design of the program, as evidenced in the *Getting Started with Texas Experience/Navigational Support-Realize* Parent Support tab with live support links. Support for parents using Realize can be found in the following locations:
    - *Realize Parent Letter*
    - *Realize Parent Guide*
    - *Realize Learner Tips for Parents*
    - *Realize Parents Corner*
    - The G*etting Started* materials also contain *Engage in Dynamic Experiences* that a teacher can use to explain the program's 5E design to students and caregivers

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

- The materials provide information to be shared with caregivers for how they can help reinforce student learning and development with the Realize Parent Letter. The letter explains that students will use the program for instruction and assignments. It encourages parents to support their child using the program while at home and watch their child teach them how to use the resource. Getting started and troubleshooting directions are also included in the materials.
- The materials provide information to be shared with caregivers for how they can reinforce student learning and development, as evidenced in the Topic 1, *Matter, Launch - School-to-Home Letter*. This letter gives caregivers information about what their child will learn in Topic 1, *Matter.* The letter states, “One of the best ways for students to check on their learning is to explain it to someone else.”
- The Realize Parent Guide provides caregivers with information to access and use Realize to support their student's at-home learning. The guide includes the following section titles: *Getting Started, Realize Home Page, Viewing and Accessing Assignments, Completing and Submitting Assignments, Grades and Teacher Feedback, Browsing Realize and Offline Access*, and *Support for Savvas Realize*. These materials enable and reinforce the parents' role in their student's learning.
- The Getting Started materials contain a tab for Realize Parent Support with a section titled, *Realize Learner Tips* for caregivers to assist with at-home learning. It includes seven tips: “1) set clear expectations, 2) take a break, 3) plan for attention span, 4) enjoy the sunshine, 5) practice mindfulness, 6) love over lessons, and 7) keep up communication.” This document is also available in Spanish.
- The materials share caregiver/student activities to reinforce student learning and development at home. For example, Topic 2, *Force and Motion* Home Connection states, “Have students make a list of all contact forces that they observe as home.” The materials also provide at-home vocabulary support. The Topic 1, *Matter,* Wrap-Up section contains website access with activities for reinforcing students' learning of scientific vocabulary. Students log in at home and play the vocabulary game titled, *Matter*. Science vocabulary flashcards are available for at-home practice. For example, Topic 1, *Matter*, contains matter vocabulary cards that the teacher can assign to students for practice at home.

Materials include information to guide teacher communications with caregivers.

- The materials include information to guide teacher communications with caregivers. A bulleted list informs teachers of ways to communicate information with caregivers in the *School-to-Home Communications Guide.* In addition, the *School-to-Home Letter* encourages communication with verbiage about visiting the classroom during an open house or making an appointment with the teacher. The *School-to-Home Letter* states, “Look through recently completed content and be sure to ask lots of questions. One of the best ways for students to check on their learning is to explain it to someone else.”
- Each Topic Launch includes an editable *School-to-Home Letter* with information about the Topic and how the caregiver can reinforce learning at home. The editable letters also provide templates for communicating student progress to caregivers.
- The materials include web links that the teacher can share with caregivers in the Parents’ Corner section, such as, *How to Use the Program*. The materials also include ideas to share with caregivers in the sections titled, *Take It Local* and *Collaborate with the Community*. For example,

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Topic 6, *Interactions in Ecosystems*, contains three *Take It Local* ideas, such as, “Invite a gardener to speak about what plants need to grow and what types of foods locally grown plants can provide, Take students on a field investigation around the school to identify food chains in an ecosystem,” and, “Arrange an in-person or virtual visit with a museum curator to learn about fossils.” These activities are designed to involve caregivers and the community, yet these materials do not guide teacher communications with caregivers.

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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.

- The Teacher's Guide materials contain a Teacher Guide Planning Resources section which houses useful instructor information to support program implementation. Included is a detailed color-coded scope and sequence table for kindergarten through grade 5, which displays both topics (chapters) and experiences (lessons) within each unit. A Course Planner and Pacing Guide share an overview of each topic as well as the experiences within each topic. A Texas Essential Knowledge and Skills (TEKS) Grade 3 Correlation guide displays information for grade-level content TEKS, science, and engineering practices (SEP) TEKS, and recurring themes and concepts (RTC) TEKS. An English Language Proficiency Standards (ELPS) table is also available.
- Each topic opens with an Overview section and includes a TEKS progression table with prior, current, and upcoming grade-level aligned TEKS. Each topic contains a Planner section that shares TEKS, ELPS, and ELAR TEKS for each topic experience. In addition, each experience contains a Teacher eText with the targeted TEKS. Lastly, an Editable Experience Planner provides an at-a-glance view of covered TEKS to assist the teacher with the identification of specific TEKS and their sequence alignment.

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

- The materials provide teacher clarity and guidance in connecting the core concepts to science and engineering practices and recurring themes and concepts as evidenced by the *Think Like a Scientist* and *Mastering Recurring Themes* sections located in the Teacher eText within an experience.
- Additionally, the SEPS and Themes Preview pages include science and engineering practices and recurring themes and concepts which use front-of-the-class (direct) instruction to explain and review the SEP TEKS. The presentation includes a clear teaching guide for the key ideas: steps to plan and conduct an investigation, using models and analyzing data, communication skills, contributions of scientists, and recurring themes and concepts.
- Each topic opens with an informational side column with sections titled *Thinking Like a Scientist* and *Mastering Recurring Themes and Concepts*. Station activities embed teacher support to help students make connections. For example, in Unit 1, Experience 1, Explore station, a section titled *Thinking Like a Scientist* focuses on the skill of reflection.

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

- Evidence shows review and practice are provided within the materials throughout the year for science and engineering TEKS and recurring themes and concepts TEKS. The station activities contain embedded teacher support to help students connect to recurring themes and scientific practices. Materials include student opportunities to revisit SEP TEKS and RTC TEKS throughout the year. For example, the recurring theme of recognizing patterns spirals through Topic 1, Experience 3, as well as in Topic 2, Experience 1, and again in Topic 4, Experience 2.
- For each topic in the Teacher's Guide, an explicit explanation of previously learned content is reviewed and spiraled into the current topic. For example, in the Grade 4 Teacher's Guide: Topic 5, *Patterns on Earth Overview*: Preview the Topic section, contains supporting content from Topic 1, *Matter*, and Topic 3, *Energy*. Students apply what they learned in Topic 1 about the physical states of matter and previous learning in Topic 3 about the transfer of energy through waves to their learning in Topic 5 about how erosion and weathering cause slow changes to the Earth's surface. In this activity, students review and practice relevant knowledge and skills from previous topics. For example, the Grade 4, Topic 5, Patterns on Earth Spiraling Activity will include review and practice for Topic 1: *Matter*, Topic 2: *Forces and Motion,* and Topic 3: *Energy*.

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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.	M
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

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include 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 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.

- The materials include a Teacher's Guide, which contains guidance for each part of an experience (lesson) with scripting throughout. For example, Topic (unit) 3, *Energy*, Experience 1, *Transfer of Energy*, supports teacher guidance with question stems for direct instruction, such as, "How does the tuning fork make water move?" Examples of additional teacher guidance include options to differentiate instruction, along with facilitator directions to assist the English Language Learner (ELL), such as, "Have students draw a picture of a tuning fork next to the water. Ask them to use arrows and labels to show the transfer of energy."
- Embedded technology is apparent within the materials, which includes a digital resource page titled, *Getting Started with Texas Experience Science*. Furthermore, the materials contain links to embedded technology in the Teacher's Guide. Each Topic Launch provides a Teacher Overview that allows menu expansion for each component, provides teacher guidance on the purpose of each component, and a brief overview of student participation. Available videos offer support for general instruction and student enhancement activities.

- Enrichment activities are included within all topics. Teachers can quickly locate Elaboration activities indicated by a blue plus sign. For example, Topic 3, *Energy*, Experience 1, *Transfer of Energy*, contains a Science, Technology, Engineering, Art, and Math (STEAM) Station Activity that explores how waves transfer energy. Elaboration activities do not include instructional scaffolding for our high-performing student learners.
- The *Texas Experience Science Instructional Research-based Pedagogy* resource provides detailed teacher guidance on the structures and benefits of the 5E model framework in the science classroom. Additional teacher support with the 5E instructional model is evident within each topic. For example, Topic 4, Experience 2, provides guidance for the Explore portion with instruction to activate prior knowledge by asking, "What kind of action models an orbit?" Additional teacher scripting for the Explore station includes, "We will work to explore information about the moon phases in the literacy station."
- Evidence of scaffolding exists in the materials to include extension opportunities and support for ELL students. The Teacher's Guide provides guidance for differentiated instruction. For example, scaffolds with targeted ELPS reading supports are shared in Topic 6, Experience 2, Explore Literacy Station.

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

- The Topic Planner contains the TEKS covered in each experience. Standard correlations to science, English Language Arts and Reading (ELAR), social studies, and math are present throughout various units. For example, Topic 5 includes cross-content standards for ELAR.
- In addition to cross-content standards correlations, the materials include a TEKS Progression section in the Topic Overview which provides a look back to correlated TEKS from the previous grade level to understand, "How does this topic connect to what students learned earlier?" Another section labeled *In This Topic* shows the TEKS covered within the topic, and a section titled *A Look Ahead* contains correlated TEKS from the next grade level, which answers the question, "How does this topic connect to what students will learn later?"

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

- The Master Materials list in the Additional Program Resources tab contains a downloadable zip file with detailed information. In each Topic Overview and each experience, the materials are listed in the left-hand column for each lesson component. For example, the Literacy Station section in Topic 3, Experience 2, lists the following resources in the left margin to support this experience: Literacy Station Cards, Read About It, Literacy Station Activity, and Vocabulary Activity Cards. In addition, students are informed of needed materials.

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

- The materials contain a Hands-On Activity Safety Guide within the Additional Program Resources tab, which reviews safety icons and procedures for the hands-on activities found within the program. The lab safety guidelines share information about the lab dress code, sharp objects, and a lab safety equipment review, including a student lab safety contract. Topics with a

science, technology, engineering, art, and math (STEAM) activity incorporate a safety tip in the Teacher Guide Overview. For example, Topic 2, Experience 2, includes instructor reminders to assist students with the glue gun. Guidance for safety practices in Topic 4, Experience 2, includes the safety tip, "Remind students to use care when working with scissors and to demonstrate safe practices during investigations as outlined in the Texas Education Agency-approved safety standards."

- Additionally, the materials provide students with a Student Activity Companion, which shares safety practice guidance and includes the grade-appropriate use of safety equipment. Safety guidance is embedded in student materials. For example, Experiences with Explore stations include student Station Activity Cards displaying caution with materials, such as, "Be careful with scissors." Another example in Topic 3, Experience 2, the student Station Activity Card states, "Do not touch hot objects. At this station, get approval from your teacher before touching any materials."

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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 materials provide multiple scheduling considerations and include valuable guidance and recommendations on required time for lessons and activities. Within the online materials, the Designed for Texas Course Planner and Pacing Guide shares a pacing overview for the course and lists average durations in days per topic (unit). The two included pacing options are titled Fast Track and Got More Time. For example, Topic 4, *Earth and Space,* suggests seven days for Fast Track pacing and ten days for Got More Time pacing.
- Recommended durations in minutes are listed in the Topic Planners, the Experience At-A-Glance pages, and the instructional pages of the Teacher's Guide. An editable Topic Planner for each experience within a topic permits the instructor to customize scheduling considerations. Each Topic Launch includes a Topic Planner with the suggested number of instructional days and designated minutes for each section of the 5E model framework. For example, in Topic 4, *Earth and Space,* the suggested time frame for the unit is ten days. For Topic 4, *Earth and Space,* Experience 1, *Seasons,* the suggested lesson time frame is five days or 150 minutes, and the recommended time for the Engage portion of the lesson titled, *Why do some trees in Texas change during the year?* is five minutes.

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 of program materials allow for topic (unit) implementation in a developmentally appropriate progression. The Topic Overview section includes implementation plans that start with a recall of prior knowledge and progress to building upon this knowledge as

students participate and engage throughout the lesson cycle. Lessons provide teacher guidance for English Language Proficiency Skills (ELPS) learners of varied stages to apply understanding at home, in their "real world," and to "think like a scientist."

- The materials delineate the order of topics to ensure students learn about precursor concepts first. For example, in Topic 4, Experience 2, students complete a hands-on station demonstrating how the moon changes phase over a month before they design and build a moon phase viewer to show the different stages of the moon.

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

- The materials are flexible and can be completed in one school year. The Designed for Texas Course Planner and Pacing Guide outlines a year-long progression of all Texas Essential Knowledge and Skills (TEKS) to be taught in order by topic (unit) and provides instructional pacing flexibility. An Editable Planner in the Launch section of each topic (unit) allows teachers flexibility to adjust suggested instructional times provided within each Topic Planner.
- Also, the materials include two suggested pacing options which provide the teacher with Fast Track activities, indicated by a green check mark, and Got More Time activities, marked with a blue plus sign. These options allow the teacher to adjust the time spent on each topic without disrupting the content sequence that must be taught in a specific order. For example, in the Designed for Texas Course Planner and Pacing Guide, seven topics are paced in sequential order over one school year. In Topic 7, the experiences provide flexible pacing options and can be completed in seven days using the Fast Track option or in ten days using the Got More TIme option.

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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 the materials is clear and easy to understand.

Materials include an appropriate amount of white space and a design that supports 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 from 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 materials include an appropriate amount of white space and a design that supports and does not distract from student learning, as evidenced in the organization of the content. For example, in Topic 3, *Energy,* Experience 2, *Conductors and Insulators*, the Everyday Phenomenon Photo titled, *How Does Energy Move Through These Cables?* contains a picture that is grade-level appropriate, clear, colorful, contains adequate white space, and conveys a clear message. The text uses paragraphs appropriate in length for fourth-grade students, and the included pictures and diagrams provide accurate, visually pleasing content. Also, the Topic Readers included in Topic 2, *Force and Motion,* contain bolded vocabulary words with adequate content spacing. The subject headers inside the Topic Readers are written in large font and underlined in yellow to highlight their importance. A glossary of terms is provided at the end of each Topic Reader.
- The materials are written in a clear, appropriately sized font and color and also include clear pictures that help depict information. For example, the Anchor Chart Activities are provided in an editable and printable format and contain an appropriate amount of white space surrounding the text and pictures. Each Anchor Chart title is written across the top in large, blue font, while the student Anchor Chart Activities contain black print. The Vocabulary Cards included in the materials each have a large colored picture along with a short, simple definition with ample white space.
- Student Station Activity Cards include a concise title, a materials list, and instructions. The content is clear and organized. For example, the Hands-On Station Cards in each Topic are mainly white with a colorful purple stripe on the left side that designates the Experience. The titles and subheadings are bold, and the content is organized in a logical manner.

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

- The materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting, as evidenced in Topic 1, *Matter*, Experience 1, *Properties of Matter*, where the paragraphs are grade-level appropriate in length, and the pictures provide suitable visual content. The photos and videos used in the Topic Anchoring Phenomenon Activities are grade-level appropriate and support student learning. For example, Topic 5, *Patterns on Earth* Anchoring Phenomenon shares the following question with a video: "How can sunlight power devices?" This engaging phenomenon is an age-appropriate curiosity for fourth-grade students.
- The Read About It materials in each topic contain clear and authentic images and graphics to define and support the new words students encounter during lessons. For example, in Topic 5, *Patterns on Earth*, Experience 1, *Water Cycle and Weather*, the materials include a diagram of the water cycle and photos that clearly show examples of condensation and precipitation. Another example of authentic images and graphics is found in Topic 3, *Energy*, where The Read About It materials incorporate diagrams that distinctly show the parts of a circuit. These photos indicate a distinction between closed circuits and open circuits.
- The visuals are age-appropriate and well-designed to accompany the lessons. There are full-color videos and photographs when appropriate, and they do not distract from the learning task. The Hands-On Station Cards include relatable student graphics, as there is a photo of a child of similar age on one of the cards shown completing the station activity.

Materials include digital components that are free of technical errors.

- The materials include digital components that are free of technical errors, as evident in Topic 2, *Force and Motion*, Topic Reader, *Energy and Motion Around Us*. This reader is free of typographic errors. The Hands-On Station Activity titled *How Does Ice Shape The Earth's Surface?* in Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, contains no typographic errors. The Teacher's Guide eText is easy to access and read with no technical errors. A digital vocabulary game in Topic 3, *Energy*, is also free of technical errors.
- Digital components are easily accessible and readable. The Key Ideas Presentations open effortlessly in Google, or they can be downloaded. Furthermore, digital components such as vocabulary cards open smoothly and are downloadable and editable.
- The materials contain a Savaas Parent Corner website that provides information to share with caregivers about the program design. The materials also include a Parent User Guide and How-To videos for both students and parents. These materials are free of spelling, grammar, and punctuation errors and contain accurate science content and information.

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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.

- The materials integrate digital technology and tools that support student learning and engagement. There are two types of games with which students can engage: a Vocabulary Game that allows students to practice their topic-level vocabulary and a Legends of Learning Game that focuses on the topic content. For example, in Topic 6, *Interactions in Ecosystems*, Experience 1, *Organisms in Ecosystems*, students identify producers, consumers, and decomposers in a variety of environments when playing a Legends of Learning Game.
- Virtual labs engage students with content as well. For example, Topic 2, *Force and Motion*, Experience 2, *Noncontact Forces*, includes a virtual lab where students apply and practice unit concepts by selecting a propeller speed for a model airplane and measuring the produced thrust. Another example includes a virtual lab in Topic 5, *Patterns on Earth*, Experience 3, *Natural Resources and Conservation*, where students explore the ideal energy source for a power plant based on the number of homes it serves.
- Provided online assessments in the Topic Wrap-up to support student learning and engagement. The online assessments include ten questions with pictures and STAAR 2.0 interactive questions. After the assessment, online feedback and remediation are provided through an automatic program that shows questions mastered as well as missed, and it gives results for objectives successfully completed and objectives for which more practice is needed.

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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 integrate digital technology in ways that support student engagement with the science and engineering practices (SEPs), recurring themes and concepts (RTCs), and grade-level content as seen in the Grade Level Table of Contents, SEPs, and RTCs Preview that contains an SEPs and RTCs Presentation. In Topic 2, *Force and Motion*, Experience 1, *Forces*, students plan and conduct an investigation and use models to analyze data as they play the Legends of Learning Game, *Flick a Marble*. This game allows students to apply their new knowledge about forces as they change the force and angle to flick a steel marble into a goal.
- Student virtual activities are included in every unit. The materials include virtual labs that allow students to participate in online interactive activities, record observations and explanations, and answer questions in an interactive online notebook. For example, Topic 5, *Patterns on Earth,* Experience 3, *Natural Resources*, contains student virtual activities, including a virtual lab titled, *The Best Power for the Places.* In this activity, students explore the ideal energy source for a power plant based on the number of homes it serves. Students record each lab activity in their notebooks, and they can take screenshots to include in their notebooks.
- Digital technology is integrated into each topic's Key Ideas Presentation, which includes a virtual presentation and video to reiterate content. The presentation facilitates student connections between the science content they learned and the science practices they used. The engaging video provides additional examples and meaningful explanations for students. For example, the Key Ideas Presentation and Video in Topic 5, *Patterns on Earth,* Experience 3, *Natural Resources and Conservation*, focus on natural resources.

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

- The materials integrate digital technology that provides opportunities for teachers and/or students to collaborate. In the *Getting Started in Texas* section, there is a Support for Collaborative Tools in Realize document that explains the many ways teachers and students can collaborate, including commenting on assignments, discussion prompts, a PDF toolkit, and student playlists. Teachers can assign content, such as discussion prompts, and send notes to students with assignment feedback and suggestions. Likewise, students can respond to teacher comments.
- A teacher can create a playlist that includes not only materials found in Savvas Realize but also other materials outside of the textbook, such as images and/or videos. To support students with learning, the playlist can be shared with other teachers and/or parents.

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

- Materials integrate digital technology that is compatible with a variety of learning management systems (LMS), including *Google Classroom*, *ClassLink, Power School*, *Google Drive,* and *Canvas.* A Realize Canvas Integration document is included that provides information on the integration and how to use it. The Digital User's Guide within the materials lists the available digital tools by

category and includes: 1) Rostering Tools, 2) Student Information System, 3) Learning Management System, and 4) Productivity Tools.

- Materials are compatible with Google Classroom only after a teacher manually enrolls the students or through a district auto-roster. On-demand training and hand-outs for step-by-step instructions for teachers and administrators are provided in the Getting Started materials under Teacher Support. Some materials are downloadable as PDFs and accessible without access to the internet.

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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

Digital technology and online components 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.

- 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. All printed documents are available through digital access and align to the scope and sequence. These materials include reading text passages, assignments, assessments, and visual materials such as vocabulary cards.
- The Topic Readers in the materials align with the scope of the content and include developmentally appropriate pictures and text. The Topic Readers are tagged with Lexile reading levels and progress as the students advance grade levels. Topic 2, *Force and Motion,* references a Topic Reader titled, *Energy and Motion Around Us,* which covers the different kinds of forces and energy, as well as where those forces and energy can be found in our daily lives. Another example is Unit 4, *Earth and Space,* Topic Reader titled, *Earth' Patterns and Space*, which shows appropriate pictures to match the content, such as students reading and places around the world. This Topic Reader covers the patterns of the sun, moon, Earth, and the stars in the solar system and the ways in which they change and affect changes in the seasons, hours of daylight, shadows, and tides. It includes an in-depth look at solar energy as a renewable source of energy and explores tidal energy as an emerging technology.
- Topic Overviews include digital and online components appropriate for fourth grade and aligned to the scope and sequence. Each Topic Overview provides teacher videos with instructional guidance. For example, the Topic 2, *Force and Motion,* Overview contains valuable information

organized into the following sections: *Preview the Topic, Teacher Background, Teacher Prep, Common Misconceptions*, and *TEKS Progression* with vertical alignment of addressed TEKS in third, fourth, and fifth grades.

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

- Materials provide teacher guidance for the use of embedded technology to support and enhance student learning. The Digital User Guide provides information on how to use the program and its embedded technology for student learning, including guidance on navigating materials, assigning content, operating class tools, scoring student work, and integration support. There is also a *My Savvas Training: Google Classroom* document that provides guidance for program implementation with *Google Classroom* so that teachers can work in Savvas Realize while students can remain in Google Classroom. The provided On-Demand Training is broken into the following categories: *Getting Started*, *Tools for Teachers*, including topics such as Google Classroom tutorials, *Google Classroom Online Help*, *Google Docs*, and *Tools for Administrators*.
- The materials provide teacher guidance for which lesson sections to use technology with students. The materials outline these recommendations in the Topic Planner Overview section and provide clear instructions and tutorials within the teacher platform through the Virtual Program Activation, which explains how to use the embedded technology. The At-A-Glance Topic Planner for Topic 2, *Force and Motion,* shares a detailed overview of the unit and the Experiences within that Topic.
- The *Getting Started* section provides guidance for embedded tools that support and enhance student learning. For example, the Digital User Guide within the Navigational tab includes 12 pages of support for assigning content, using tools, scoring work, guiding student experiences, available integrations, and additional resources.

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

- Materials are available to parents and caregivers to support student engagement with the digital technology and online components, as evidenced in the *Getting Started in Texas Experience* through the *Realize Parent Support Tab,* which contains parent support links and can be found in the following locations: *Realize Parent Guide*, *Realize Learner Tips for Parents*, and *Realize Parents Corner,* and a *Realize Parent Letter.* The *Parent Letter* explains students will use the program for instruction and assignments, and it encourages parents to support their child using the program while at home and watch their child teach them how to use the resource. Directions for getting started and troubleshooting are also included.
- The *Realize Parents Corner* link provides resources such as documents, websites, and videos to help parents and students navigate the program. A User Guide is also available in seven different languages. Once a language is selected, the guide is available online, or it can be printed in PDF format. This guide offers a parent or caretaker all the needed information to access and utilize *Savvas Realize* to support a student's academic growth. The guide offers an introduction to the program, navigation how-to for assignments, and support for browsing the program.
- Furthermore, a provided grade-level *School to Home Letter* is editable and can be translated. The letter is directed to "Dear Family Member or Caregiver" and includes information about

what students will learn throughout the year, bullet points on how to stay involved in learning, and teacher availability if caregivers have questions.