Savvas Learning Texas Experience Science Grade K

Savvas Learning Texas Experience Science Grade K 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 K	100%	100%	100%	100%
Grade 1	100%	100%	100%	100%
Grade 2	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 mostly 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 the 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.

- Teacher guidance materials are organized in units that use Texas Essential Knowledge and Skills (TEKS) anchoring phenomena to connect content standards to scientific and engineering standards. Materials provide multiple opportunities for students to develop, practice, and demonstrate engineering skills through hands-on experiences. STEAM activities are included to integrate engineering standards further.
- For example, in Topic 1, students identify objects and their physical properties and classify objects. In Topic 2, students experiment with magnets. In Topic 3, students discover how they can block light. In Topic 4, students observe and record observations of the sky and weather. In Topic 5, students describe, sort, and categorize rocks. In Topic 6, students identify plant parts and needs.

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- Materials provide multiple opportunities for students to practice grade-level appropriate scientific and engineering practices as outlined in the TEKS in station and/or STEAM activities.
- For example, Topic 4, *Patterns in the Sky*, includes a STEAM activity to apply what they have learned about weather to create a wind vane and test their designs outside. In addition to the content TEKS, this activity also integrates using tools and recording data.
- Grade K materials include SEPs and Themes Preview Presentation designed for front-of-classroom instruction to explain and review the SEPs and themes of the TEKS. Each grade level provides five activities that introduce students to the SEPs and recurring themes and concepts in science.
- Teacher materials provide multiple opportunities to practice grade-level appropriate scientific and engineering practices as outlined in the TEKS.
- For example, in the Topic 1 Planner: *Objects*, the anchoring phenomenon is, "How can we organize these things?" Further, the experiences in each lesson are organized in the 5E model, and the phenomenon is built into each section. In the Engage section, the lesson includes an Everyday Phenomenon Photo that students observe to answer the question, "Why can we describe this object more than one way?" The materials also include an Anchoring Phenomenon Video and guide the teachers to revisit the anchoring phenomenon as the Topic Assessment.
- Additionally, in Topic 1: Experience 2. The Phenomenon Tracker for this 5-Day lesson states, "Students identify properties of objects to begin to organize them into groups according to the properties they share." In the Engage section, the teacher leads an Everyday Phenomenon Demo where the students answer, "How would you group these objects?" The Explore section contains a hands-on station focused on the question, "Which objects go together?" and a literacy station focused on the question, "How can you classify objects?" The Explain section discusses their observations and a video presenting additional examples and explanations of how and why objects are classified. The Evaluate section provides options for students to utilize an online or printed exit ticket and the discussion prompt for the teacher to ask, "What are some jobs people have where sorting is important?"

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

- The materials provide multiple opportunities to use recurring themes to make connections between and within overarching concepts. The Teacher's Guide uses sidebars within the Topic lesson plans to indicate the recurring themes.
- For example, patterns, one of the recurring themes, make connections between and within overarching concepts. Teachers can reference a reader, included in Topic 1, *Objects*, which covers the basic properties of matter and how they classify objects and order them into patterns. Topic 4, *Patterns in the Sky*, includes several resources to make connections with the concept of patterns. Vocabulary cards in this topic include a card for *pattern* with an illustration of day and night. There is a literacy station where students use the Read About It reader to predict and describe patterns of day and night. The Teacher's Guide includes a sidebar, *Thinking Like a Scientist*, which guides the students in analyzing the details in images to find patterns in naturally occurring phenomena.
- For example, Topic 2, *Magnets and Motion,* contains a sidebar noting how the recurring theme and concept of cause and effect is supported in the station activity "What Will A Magnet Pick Up? Another sidebar in Topic 5, *Rocks, Soil, and Water,* in Experience 1 supports the recurring theme and concept of describing properties.

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- In grade K, Topic 6, *Plants,* and Topic 7, *Animals,* both address the recurring theme of living things surviving in their environment. Within these topics, students identify that plants resemble their parents, have structures, and undergo processes that help them survive within their environment. They also observe and identify that animals have structures to help them interact and survive within their environment.
- The K-5 scope and sequence includes specific information about when recurring themes are introduced and when they are spiraled back into the program. Teachers can access slides to introduce the recurring themes and concepts.
- Kindergarten materials utilize Earth and space as a recurring theme. For example, in Topic 4, *Patterns in the Sky*, and Topic 5, *Rocks, Soil, and Water,* both address this theme. Teacher-provided materials suggest students observe patterns and systems in the natural world, including objects in the day/night sky, daily weather, and seasonal changes. They also classify, describe, and generate examples of practical uses for Earth materials such as rocks, soil, and water.

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

- Recurring themes are identified in the materials that are strategically and systematically located within the experiences students are exposed to in the stations included for each topic. Grade-level content knowledge and skills are taught using SEPs and recurring themes enabling students to build and connect knowledge to apply to new concepts. Topic 2, *Magnets and Motion*, includes stations on magnets before stations exploring how magnets push and pull.
- Grade K materials include the 5E model of instruction as the lesson format. The systematic structure uses: Engage, Explore, Explain/Elaborate, and Evaluate pieces to teach the content and skills in grade K as outlined in the TEKS. The activities in each section build upon students' understanding. In Topic 6, Experience 2, *Needs of Plants*, students engage with the Everyday Phenomenon Photo, "Why does the plant look like this?" Students explore with the hands-on station, "What does my plant need?" and Literacy Station, "What do plants need?" Students further gain knowledge in the Explain/Elaborate section with the key ideas presentation and key ideas video titled *Needs of Plants* and the WalkSTEM Observing Plants in the Neighborhood. Finally, the experience wraps up with the Evaluate Exit Ticket *Needs of Plants*.
- Materials for grades K-2 integrate science and engineering practices through classroom investigations to support instruction in the science content standards. Each topic centers on two or three experiences that include at least one hands-on experiment. In the topic overview, the teachers can view a Teacher Background Video to prepare to teach the content, as well as read teacher background information and common misconceptions.
- For example, in Topic 1, *Objects,* the first 5E lesson introduces properties of objects which lays the foundation for the next 5E lesson classifying objects. Topic 4, *Patterns in the Sky,* includes a 5E lesson on the sky which supports the following 5E lesson on weather, which leads to the 5E lesson on seasons. Topic 6, *Plants,* follows the strategic progression of a 5E lesson on plant parts to a 5E lesson on the needs of plants and, finally, a 5E lesson on plant life cycles.

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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.

- In grade K, materials provide ample opportunities for students to plan and conduct investigations. The SEPs and Themes Preview allows students to design a ramp. Each experience starts with an Engage activity where students can ask questions. Students conduct investigations during the Explore section. Hands-on stations allow students to ask questions or identify problems based on observations or information from text, phenomena, models, or investigations to make connections across disciplines and develop an understanding of science concepts. Students plan and conduct an investigation to show different ways to classify objects as part of a station activity in Topic 1, *Objects*. In Topic 6, Experience 2, "What does my plant need?" students work in groups to discover what happens to their plant if all its needs are unmet.
- The materials are arranged in topics with an anchoring phenomenon. Within each topic are two to three 5E lessons, each including opportunities for students to ask questions and a hands-on lab station. The materials also include several STEAM activities to develop their understanding of science concepts further and engage in problem-solving.
- The materials have several supports to guide teachers through developing content concepts and skills. One support is Teacher Background Videos to help teachers develop student content concepts and skills. The Teacher's Guide contains sidebars throughout every topic to help guide teachers through the development of content concepts and skills. Sidebars include *Thinking Like a Scientist, Connect to Literacy, Home Connection, Related Phenomena, Mastering Recurring Themes and Concepts, Take it Local,* and *Mastering Scientific and Engineering Practices.*

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

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.

- Materials provided anchoring phenomena driving student learning across grade-level content in each discipline.
- For example, in Topic 1, the anchoring phenomenon is, "How can we organize these things?" The students first learn about the property of objects and how to describe them. They then move on to a lesson on classifying objects to answer the anchoring phenomenon.
- For example, Topic 7 uses the anchoring phenomenon: "Why does a pelican have a large mouth and wings?" The topic has two 5E lessons, allowing students to develop, evaluate, and revise their thinking as they try to answer the question. In the first lesson, *Animal Parts*, students explore animal body parts and their functions as they participate in both hands-on and literacy stations. After the Explore activities, the students discuss what they learned and watch a video featuring examples with explanations of animal parts. The students then watch a video featuring a pelican and describe the pelican's mouth and the needs of animals. The students participate in hands-on literacy stations to develop their understanding of the needs of animals and follow up with a discussion to reinforce the key ideas. The students revisit the anchoring phenomenon to apply what they have learned to answer why a pelican has a large mouth and wings.

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- Materials embed phenomena across topics by beginning every topic with an anchoring phenomenon or problem to activate student thinking. Students observe the phenomenon or problem by watching a video and engaging in a class discussion, laying the foundation for students to construct knowledge of grade-level content. Throughout each Experience, students revisit the anchoring phenomenon and build knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content. At the end of each topic, students revisit the anchoring phenomenon to apply what they have learned throughout the topic.
- For example, Topic 6 begins with the Anchoring Phenomenon Video showing several flowers with unusual shapes and smells. The teacher asks, "Why would a flower look like bright red lips or a duck? Why would a flower smell like rotting meat?" At the end of the topic, the students rewatch the video, and the teacher asks, "Why do plants look and smell the way they do?"
- Materials provide opportunities for students to develop, evaluate, and revise their thinking as they engage in phenomena and solve problems. Materials embed phenomena within Experiences with an Everyday Phenomenon Photo or demo to activate student thinking. Students observe the phenomenon photo or demo and engage in a class discussion that builds upon the foundation created by the anchoring phenomenon. In Topic 7, Experience 2, the Everyday Phenomena Demo explores "Why do we have to breathe?" to activate students thinking about the needs of all animals. Students apply their understanding of local, everyday phenomena to develop solutions to problems.

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

- Teacher materials provide several opportunities for students to communicate their experiences outside school. Several topic overviews include a home connection that helps students connect what they learn at school to what they may know at home.
- For example, in Topic 2, *Magnets and Motion*, students create a chart of everyday uses of magnets. As students learn how magnets interact with different materials, they are encouraged to work with an adult to identify how magnets are used at home. The students add their observations to the class chart and discuss their findings.
- The materials allow for different points of entry to the learning phenomena. Materials provide students with multiple ways (teacher demonstrations, hands-on stations, literacy stations, experiences, videos, text, data, and images) to experience the phenomena.
- Embedded sidebars give guidance on relating the student learning to their local community.
- In Topic 2, *Magnets and Motion*, a sidebar on a related phenomenon suggests bringing a purse or wallet with a magnetic clasp to allow students to feel the pull between the two sides of the clasp. In another sidebar, *Take it Local*, the teacher brings students on a walk around the school to find and identify objects that stick to a magnet. A STEAM activity is included where students design a pick-up tool with a magnet.
- In Topic 5, *Rocks, Soil, and Water*, after students have learned about rocks, they view a picture of the Texas State Capitol Building and discuss what materials they think were used to build the building and fountain. A related phenomenon sidebar gives the option to show a video of a city park that has a stone fountain.
- Materials provide a teacher guidance section at the beginning of each topic that includes common misconceptions to help students be successful in the unit. The section helps teachers gauge where some students may have inaccurate or inadequate prior knowledge.

- For example, in Topic 4, *Patterns in the Sky*, materials provide guidance for the common misconceptions that the moon is not visible in the daytime sky, clouds are not visible in the night sky, and the sun and moon disappear when clouds block them. There are also sidebars to address misconceptions throughout the topics. One sidebar addresses the misconception about the dark side of the moon, and in another sidebar, the teacher helps students understand that air is everywhere.
- In Grade K, some common misconceptions about plants are that they all have the same parts, they only need water to grow and thrive, and seeds grow into new plants where they fall to the ground from the parent plant, which are in the Experience lesson.
- Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems. For example, in Topic 3, the anchoring phenomenon asks the question, “What are the lanterns made of that let us see them in the dark?” After watching the video, students ask questions, and the teacher leads a class discussion which prepares the students for the investigations on the topic.

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

- Materials clearly outline the scientific concepts and learning goals behind each anchoring phenomenon that corresponds to concepts across the grade level. Each topic contains two to three 5E lessons that connect the anchoring phenomena to guide students in gaining a deeper understanding of corresponding grade-level concepts. Each topic includes a video to assist the teacher in understanding the scientific concepts and goals.
- Teacher guidance materials explain the scientific concepts and outline lesson goals behind each phenomenon and engineering problem. In the phenomenon tracker in Topic 5, *Rocks, Soil, and Water,* Experience 1, the students observe and identify the properties of rocks and learn how they are used to make many objects. In Experience 2, the students walk around the school or neighborhood to observe how rocks, soil, and water are used in these areas. Each topic provides information for students to identify the learning goals behind each phenomenon or engineering problem. Each experience includes an objective that the students review during the 5E cycle.
- Each topic provides a Teacher Background section that refreshes teacher knowledge or topic content and outlines key concepts to support instruction on the topic. In Topic 1, *Objects*, the Teacher Background includes objects that can have observable properties. Objects can be classified by their physical properties. Patterns can be used to describe phenomena; for example, objects can have the same shape, size, color, and material.

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Indicator 3.1

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- Materials include a TEKS progression in the overview at the beginning of each topic, providing the primary TEKS that guides the topic which shows the relevant TEKS or guideline progression in the grade prior to and after the current grade. The vocabulary at each grade level and how it builds upon the previous year's vocabulary is also shown.
    - Kindergarten Topic 1 builds student knowledge around properties and classifying objects. The student applies their knowledge of classifying objects in Topic 2 as they learn which objects a magnet will pick up while learning more about magnets and motion. Topic 2 focuses on describing how a magnet interacts with various materials and how they can be used to push and pull with the anchoring phenomenon question, "How do we sort these objects faster?" In grade 1, the materials build upon the knowledge of how pushes and pulls impact an object. Within grade 1, Topic 3, *Force and Motion*, two experiences, *Push and Pull* and *Speed and Direction*, extend the knowledge gained in kindergarten. The materials extend the student's knowledge of the impact on objects by pushing and pulling further in grade 2 as they investigate how objects can change shape when they push on each other and how the strength of a push or pull changes an object's motion.

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- The materials connect new learning to future learning across grade levels.
    - In the Teacher's Guide, materials include a scope and sequence that addresses what is being taught within each unit and explain how it connects to previous and future learning goals. The kindergarten Topic 2: *Magnet and Motion* and Topic 3: *Light and Shadow* vertically align with grade 1's Topic 2: *Heat Causes Change* and Topic 3: *Force and Motion*. They are also vertically aligned with grade 2's Topic 2: *Force and Motion* and Topic 3: *Sound and Volume*. They all fall within the theme of Force, Motion, and Energy.
- The materials include a TEKS Progression where standards are addressed in each topic as well as the topic that connects to what students learned in the prior grade and will learn in the coming grade.
    - For example, each topic provides a TEKS progression chart in the Topic Overview. For example, in pre-kindergarten students observe the properties of objects. In kindergarten, students learn to classify objects, and in first grade, they classify objects and learn about their properties.
    - In kindergarten Topic 2, the students describe and predict how a magnet interacts with various materials and how magnets can be used to push or pull. In pre-kindergarten, the students observe, investigate, describe, and discuss the position and motion of objects. In first grade, students explain how pushes and pulls can start, stop, or change the speed or direction of an object's motion. The progression chart includes the vocabulary for each year.
- Materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels.
    - Materials provide a scope and sequence that shows the topics across grade levels. Topic 1 in grades K-5 is *Matter and Its Properties*.
        - In grade K, the lessons focus on the *Properties of Objects* and *Classifying Objects*. In grade 1, students will continue to build on the concepts with lessons on *Building with Parts, Properties of Objects,* and *Changes to Materials.* In grade 2, the lessons progress to *Properties of Matter, Changes in Matter,* and *Combining Matter.*
    - In kindergarten, the materials provide lessons on animals. The lessons include *Animal Parts* and *Needs of Animals*. In grade 1, the topic continues with lessons on *Animal Structures, Parents and Young,* and *Animal Life Cycles*. The topic vertically continues in grade 2 to include lessons on *Environments, Living Things in Environments,* and *Food Chains.*

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

- Materials include a progression of lessons allowing for deep conceptual understanding. Each topic contains two to three experiences through 5E lessons that sequence instruction to build prior knowledge before explicit teaching occurs.
    - Grade K materials allow students to build their knowledge and skills within topics by beginning each topic with an anchoring phenomenon. Materials provide activities in each experience where students build and connect their learning to form a deeper understanding of the anchoring phenomenon.

  - In Topic 1, students watch an Anchoring Phenomenon Video to answer the question "How can we organize these things?" In Experience 1, students explore different objects based on the properties of color, shape, and texture through the hands-on activity: "What is it?" In Experience 2, students classify objects according to their properties. Students then connect the knowledge they learned to better answer the phenomenon question when they revisit the anchoring phenomenon and are given the prompt, "What are some ways that objects are alike?"
  - In Topic 3, *Light and Shadows*, students observe the effects of light in everyday life. The students first discuss the idea of light sources, such as the sun or a flashlight. Then, students demonstrate and explain how light can travel through different materials. Then, students will see which materials allow light to travel through and which are blocked.
- Materials are sequenced to scaffold learning in a way that allows for increasingly deep conceptual understanding. The 5E model is embedded into the planning categories of Topic Launch, Experiences, and Topic Wrap-Up.
  - In Topic 6, *Plants*, the materials provide an Anchoring Phenomenon Video: "Why do plants look and smell the way they do?" and vocabulary picture cards to introduce students to the vocabulary found in the upcoming lessons. Experience 1 completes the entire 5E model. During the Engage phase, a demo focuses on the question, "Why does this plant have different parts?" The Explore phase allows students to explore plant parts, focusing on questions such as "What are plant parts?" and "What do plant parts do?" The Explain portion of the lesson takes students through a "Key Ideas" presentation and video. During the Elaborate phase, students engage in a STEAM Activity by building a model plan. Students will label the plant parts and describe the function of the parts to the class or a partner using their knowledge and understanding built throughout the Experience.
  - In Topic 4, Experience 1, students first engage with the content by looking at an Everyday Phenomenon Photo to answer the question "What will you see in the sky next?" Students explore the content by reading the Read About It: The Sky and completing the Literacy Station Activity: "What are some patterns in the sky?" and Hands-On Station Activity: "What can you see in the sky?" Students interact with explanations of the content as the teacher presents the Key Ideas presentation to the class, and the students then complete the corresponding Key Ideas Activity: The Sky. Students elaborate on the content as they complete the WalkSTEM: Drawing objects in the sky. Students' conceptual understanding can be evaluated through formative and summative assessments with exit tickets and Revisit the Phenomenon prompt.
  - Teachers are provided access to hands-on and literacy stations to Explore the concepts introduced previously during the Engage portion of the lesson. These visual aids and hands-on learning explorations scaffold learning for the students to move on to abstract learning during the Explain portion of the lesson when students discuss the key ideas. Teacher materials provide an opportunity for students to apply their learning via a STEAM activity before the lesson moves on to the Evaluate portion of the lesson allowing students to apply their learning to the anchoring phenomenon question.
  - Experience 1 in Topic 2, *Magnets and Motion,* begins with a demonstration using a variety of objects and a magnet so that students observe that some

objects are attracted to the magnets and some are not. The students begin to build knowledge that not all objects are attracted to magnets. The students then move into a hands-on lab exploring which objects a magnet will pull up. The students discuss their learning in stations in the Key Ideas presentation as part of the Explain portion of the lesson. The students watch a Key Ideas video on magnets to reinforce and expand their learning that some metals are magnetic. The video also addresses the misconception that all metals are magnetic as it demonstrates that a penny is not magnetic. The teacher checks for mastery in the Evaluate portion of the lesson by holding up a variety of objects one at a time and asking the students to show thumbs up if the item is magnetic. The anchoring phenomenon is revisited as the teacher asks how magnets can help sort some objects.

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

- Materials provide a scope and sequence that clearly and accurately presents grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices. The theme of *Matter and Its Properties* is addressed at every grade level.
    - Teacher materials provide a Topic overview at the beginning of each topic listing the grade-level-specific core concepts, the scientific and engineering practices TEKS, recurring themes and concepts TEKS, English Language Proficiency Standards, and cross-curricular TEKS.
        - For example, the At-A-Glance pages for Topic 1: *Objects* includes the core concept K.6 identifying and recording the properties of objects. The overview also includes the 3 SEPs, 3 recurring themes and concepts, 4 ELPS, and ELAR TEKS embedded in the topic.
- Materials scaffold learning and allow for increasingly deeper conceptual understanding by following the 5E model.
    - In Topic 4, Experience 1, they first engage with the content by looking at an Everyday Phenomenon Photo to answer the question, “What will you see in the sky next?” They explore the content by reading the Read About It: The Sky and completing the Literacy Station Activity: “What are some patterns in the sky?” and Hands-On Station Activity: “What can you see in the sky?” They interact with explanations of the content as the teacher presents the Key Ideas presentation to the class, and the students then complete the corresponding Key Ideas Activity: The Sky. Students elaborate on the content as they complete the WalkSTEM: Drawing objects in the sky. Finally, students' conceptual understanding can be evaluated through formative and summative assessments with exit tickets and Revisit the Phenomenon prompt.
    - In Topic 4, students engage in an everyday phenomenon by discussing a photo of the sky. Students explore photos and drawings of objects that can be seen during the day and the night. Students explain and elaborate by observing objects in the day and night sky and the patterns of the day and night. Students evaluate their learning by answering questions: *What can I see in the day sky?* and *What can I see in the night sky?* as an exit ticket.
    - The materials provide SEPs and Themes Preview Presentation: Scientific and Engineering Practices. "This editable presentation is designed for front-of-classroom instruction to

explain and review the scientific and engineering practices and themes of the Texas TEKS." The presentation is designed around the key ideas of investigating or designing, analyzing data or using models, sharing ideas, scientists' help, and themes and concepts. It continues with strategies such as asking questions, using tools, math, planning and conducting investigations, designing solutions, and collecting and recording data.
    - Teacher materials provide SEPs and Themes Activities that "can be used to introduce students to Scientific and Engineering Practices, as well as Recurring Themes and Concepts in science." For example, one activity is Design a Ramp. In this activity, students are tasked to design a skateboard ramp following the steps: Ask questions, Investigate to find answers by searching online, asking experts, and/or reading books, Plan by drawing a picture of the ramp, Model by using their drawing to build a model, Experiment by testing their model and asking themselves if their model worked, and Improve the model by writing one way to make it better.

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

- Each topic includes specific learning targets for each experience to gauge student mastery of concepts for the grade level.
    - In Topic 4, the Experience 2 objective is for students to observe and describe how weather changes from day to day and that wind is moving air that is all around us.
    - For example, within Topic 1, *How can we organize these things,* there are two experiences. Experience 1 includes a phenomenon tracker where students investigate the properties of a tree trunk to begin to understand that properties can be used to group objects. In Experience 2, students identify the properties of objects to begin to organize them into groups according to the properties they share. These phenomenon trackers support the main concepts for the grade level.
- Each experience includes an exit ticket that supports the teacher in assessing if the student has attained mastery according to the phenomenon tracker. Each topic also includes a topic test for a summative assessment of the topic. The topic test can be taken online or in a printable format. There is also a short constructed response available. Topic 1, *Properties of Objects*, contains an exit ticket for Experience 1 that directs the teacher to ask students to refer back to a drawing they made at the beginning of the experience and describe the properties of the object. In Experience 2, *Classify Objects*, the teacher asks students, “What are jobs people have where sorting is important?” as an exit ticket. The multiple-choice online or printable topic test contains pictures and questions, such as a set of objects that are all circles and answer choices that describe how the objects are the same. The short answer composition test includes a picture of objects and the question, "How would you sort these objects?" In Topic 6, Experience 1, the objective is: “Students will identify the structures and functions of plant parts, including roots, stems, leaves, flowers, and fruits.” At the end of the experience, students complete an exit ticket assessing parts of a plant.
- Mastery requirements of the materials are within the boundaries of the main concepts of the course. Topic 4, *Patterns in the Sky,* supports the evaluation of student mastery with multiple embedded formative assessments and summative assessments throughout each experience. In the Key Ideas presentations for Experience 1 and Experience 2, there are student-facing slides and teacher notes. The slides have direct instruction and formative assessment to help students synthesize a comprehensive and accurate understanding of key concepts and engage with

scientific practices and recurring themes and concepts. After the presentation, each experience's Key Ideas Activity allows students to apply concepts they have learned.

- The materials include specific objectives and evaluate the objectives by having students complete an exit ticket after each experience to assess mastery of key grade-level science concepts. In Topic 6, Experience 1, the objective is: “Students will identify the structures and functions of plant parts, including roots, stems, leaves, flowers, and fruits.” At the end of the experience, students complete an exit ticket assessing parts of a plant.
- The materials clearly define the boundaries of content that students must master for the grade level. In Topic 5, *Rocks, Soil, and Water*, the Topic Overview provides guidance about what students learned the previous year, and where concept learning will progress to the following year. In pre-kindergarten, students observe and describe earth materials. In kindergarten, students observe the properties of rocks, and in first grade, students investigate and document the properties of soil and rocks.
- For each topic, the materials include a Topic Wrap-Up that includes many ways to assess student learning and mastery. For example, at the conclusion of Topic 3: *Light and Shadows*, the materials provide an online test. The assessment contains 6 questions that are graded automatically. An editable and printable version of this assessment is also provided to "assess mastery of the concepts presented in the investigation." A short constructed response assessment is available online or as an editable printed version.
    - In addition to assessments at the end of a topic within each Experience, the materials provide a Wrap-Up Exit Ticket as part of the Evaluate section of the 5E model. For example, at the conclusion of Topic 3: *Light and Shadows*, Experience 1: *Light*, the Wrap-Up Exit Ticket is a discussion prompt. "Use this discussion prompt as the short, formative evaluation of the content for Animal Structures." The discussion prompt is, "How do fireworks change what you can see in the night sky?"

Savvas Learning Texas Experience Science Grade K

Indicator 3.2

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- Materials contain guiding documents that support teachers in understanding how new learning connects to previous and future learning goals. For example, grade K materials include a K-5 scope and sequence that showcases which skills and standards students should have mastered in previous grades and how learning will progress in the subsequent grades for the entire six-grade-level span. The scope and sequence lists that the scientific and engineering practices along with the recurring themes and concepts are covered in the scientific and engineering practices (SEPs) and Themes Preview, and they are embedded throughout the course.
- Materials include a TEKS progression that highlights the standards that are mastered within that topic, the standards students should have mastered in previous grades, and how learning will progress in the subsequent grade. For example, Topic 4: *Patterns in the Sky* lists four TEKS and five key vocabulary words. The progression then names the two pre-kindergarten and two grade 1 standards that connect to the topic. Under the theme of *Force, Motion, and Energy*, students learn about magnets, motion, light, and shadows in kindergarten. This progresses into heat causing change and force and motion in grade 1. In grade K, students learn about magnets and the concept of push and pull. This supports the first-grade force and motion topics of push and

pull along with speed and direction. The scope and sequence then shows how, in second grade, students are learning about pushes and motion.

- The TEKS Progression provides a "Look Back" which answers the question "How does this topic connect to what students learned earlier?", an "In This Topic" which lists the "big ideas" TEKS that will be studied throughout the topic lessons, and a "Look Ahead" section that addresses "How does this topic connect to what students will learn later?" For example, in the Topic 3 Overview: *Light and Shadows*, the Look Back section lists the Pre-Kindergarten Guidelines and vocabulary (light) that students learned before kindergarten. The In This Topic section lists the current TEKS and the vocabulary that will be covered (bright, dim, light, shadow). Lastly, in the Look Ahead section, the first-grade TEKS that align with the current topic are listed. The future vocabulary is also listed (change, heat, irreversible, melt, and reverse).
- Teacher guidance materials provide a Course Planner and Pacing Guide detailing how the topics increase in depth and complexity across topics. For example, the properties of objects are taught before classifying objects, magnets are taught before push and pull, and rocks are taught before Earth materials. Within each experience, the 5E instructional model is used so students are first engaged with an introduction to the topic, which builds to a hands-on exploration and literacy station, then moves on to a discussion as students explain the concept. There is an opportunity for students to elaborate on the concept before an exit ticket is given to check for understanding.
- The materials include support for teachers to develop their own understanding of more advanced, grade-level concepts via the Teacher Background section in the Teacher's Guide which includes a Teacher Background video. In Topic 6, the Teacher Background provides this information: "Plants are living things comprised of several key structures, including roots, stems, leaves, flowers, and fruit. All plants depend on the environment to meet their basic needs for survival; these needs include air, sunlight, water, nutrients in the soil and space to grow. Plants undergo changes from seed to seedling adult plant, flower, and fruit in a simple life cycle. The parts of young plants resemble parts of the parent plant." The Teacher Background Video reviews what students may and may not already know about plants. The video reflects on what students should have learned in pre-kindergarten and outlines what they will learn in this topic. It also shows how this topic connects to the next topic and the next grade level.
- The materials support teachers in understanding the horizontal and vertical alignment, guiding the development of grade-level recurring themes and concepts, and scientific and engineering practices. In each Topic Overview, the Scientific and Engineering Practices TEKS and the Recurring Themes and Concepts TEKS are listed that will occur within the topic lesson. The materials also provide a SEPs and Themes Preview that provides a presentation that is "broken down into five Key Ideas that correspond to Texas Essential Knowledge and Skills for Science 1–5. These Key Ideas include Investigate or Design, Use Models, Share Ideas, Scientists Help, and Themes and Concepts." The guide explains how to use the presentation to guide students through the SEPs and themes. For example, for the Investigate or Design portion, the guide advises teachers to "Use Slides 2-6 to help students explore the processes of conducting investigations and designing solutions. Explain that the investigation and design processes are similar." The presentation then presents six steps to investigate or design, including asking questions and defining problems, planning and conducting investigations, designing solutions, using tools, collecting and recording data, and safety." An activity to apply the learning is then suggested.

Savvas Learning Texas Experience Science Grade K

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 support the teacher's subject knowledge by providing explanations of science concepts. For example, in Topic 5, a video explains how the TEK is addressed in the topic and its connections to previous and the coming grade levels. Materials include support for teachers to develop their own understanding of more advanced, grade-level concepts by providing a Teacher Prep Video that prepares teachers to teach the experience. Teachers Support enrich teaching with professional learning videos and best practices in science instruction.
- Each topic provides an overview to support the teacher with a brief preview of the topic, background information, common grade-level misconceptions, suggested trade books to use within the topic, and a background video to refresh the teacher's knowledge of the topic. The teacher background video in Topic 2 explains how the TEK is addressed, its connections to the previous unit, and how the topic builds across grade levels. The video gives information about the topic, including how the topic is explored within the unit. It also addresses common misconceptions. The video also provides information on how magnets are used in our everyday lives.
- The Topic 3, *Light and Shadows,* Topic Overview Teacher Background section identifies the three key concepts needed to support the instruction of this topic. Three key concepts are identified: objects can be seen only when a light source is present, objects can look different depending on the amount of light present, and light can travel through some objects but is blocked by other objects, creating shadows. The Topic 3, *Light and Shadows* background video explains the key concepts of this topic, what the students will learn throughout the topic progression, what students should be able to connect this new learning to, and what this new learning will help them understand in future grade levels.
- The teacher's background video for the topic, *Objects,* describes that although students are likely familiar with the properties of objects, they are not used to describing them. The video describes that students may have learned to describe objects using their senses in pre-kindergarten. It also describes the goals for this topic of observing and classifying objects by texture, hardness, and shape. Another concept discussed is that objects can be classified in different ways depending on the property chosen. Information on the science concepts is covered in the topic, such as students will use their senses to classify objects, and they will generate ways to classify objects based on their observations of likenesses among objects. A common misconception that an object may be classified in only one way is addressed by suggesting a Venn diagram be used to show how objects may be alike in some ways but different in others.
- The materials identify common grade-level misconceptions students may have about science concepts by providing a Common Misconceptions list for teachers on each Topic Overview. Each experience addresses misconceptions during the Explore section. For example, Topic 1, Experience 1, addresses the misconception that students may think that objects with shapes that change do not have properties that can be identified.
- In Topic 2, *Magnets and Motion*, a sidebar in Experience 1 addresses the misconception that all metals are magnetic. Teachers can access an embedded sidebar giving guidance to tell the students that the metal must contain some iron, nickel, or cobalt in it in order to be magnetic. Another sidebar gives guidance on the fact that magnets do not lose their strength in water. The

teacher is instructed to place a metal object in the water and pulls it out with a magnet to address the misconception.

- In the Topic 7 Overview: *Animals*, the materials provide a Common Misconceptions section that lists the students' common misconceptions. The misconceptions are in bold print and then there is additional text that explains the misconceptions further. For example, one misconception is, "All animals are large living things with four legs, a mouth, eyes, and ears." The explanation of this misconception is, "Students have perhaps the most contact with mammals, so their thinking is understandable. However, insects comprise the largest group of animals. Insects do have eyes and a mouth, but they have six legs, and the structures they use to hear are different from human ears."

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

- Materials explain the intent and purpose of the instructional design of the program at the beginning of the Teacher's Guide. The program was designed by Texas authors and consultants with the help of contributors of science experts to reinforce science content and make learning fun. The program guide explains how the materials were designed around anchoring phenomena from many areas in Texas including Big Bend, the Hill Country, the Panhandle, as well as, the Gulf Coast. Partners and reviewers also contributed to the design of the program with video games, simulations, and hands-on activities engaging students in connection to content in meaningful ways.
- Materials provide several resources that explain the intent and purpose of the instructional design of the program. For example, the Program Overview explains the "hands-on station-based curriculum engages all levels of learners to provide meaningful learning opportunities." The same resource explains the phenomena of explorations within the materials. "Texas has awe-inspiring science phenomena across its vast regions. Texas Experience Science uses phenomena from Big Bend, the Hill Country, the Panhandle, the Gulf Coast, and the Piney Woods for students to experience and investigate. Encourage active exploration of real phenomena with your students." The materials provide several digital resources to "support the application of science and engineering practices, connect concepts, and deepen understanding of core ideas."
- The materials provide a rationale for using the 5E model for learning in the paper titled "Experience Science; Instructional Research." The paper states that the benefits of the 5E model are that it increases student engagement, develops critical thinking skills, and fosters a deeper understanding of science.
- The materials utilize the 5E instructional model. "Students learn by exploring, collaborating, and communicating their ideas. In Texas Experience Science, the 5E model is used to scaffold inquiry instruction for students to build understanding." The program guide explains that the 5E instructional method is the foundation of the instructional plan. The 5E model is used to scaffold inquiry instruction for students to build understanding. The students Engage with phenomena, make a claim and explore while they gather evidence and test hypotheses. The students then come together as a group to explain and watch a video to verify or redirect. There are opportunities to elaborate and extend their learning. Finally, the students evaluate and demonstrate their learning.

Savvas Learning Texas Experience Science Grade K

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 an 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 provide a definition of sensemaking and identify specific student behaviors that support their sensemaking through reading and writing within each topic. Each Topic Overview includes a Connect to Literacy section that provides a list of topic readers and suggested trade books for students to interact with scientific vocabulary and informational text to build reading and writing skills.
    - For example, the reading connection in Topic 1, Experience 1, allows students to focus on identifying words that name categories, such as texture when they feel an object. The writing connection takes place during the literacy station, where students record their observations using pictures.
    - Teacher materials include key ideas activities students can utilize to think about and make further sense of the topic. For example, Topic 7 contains key ideas activity: Needs

of Animals. In this activity, students draw an animal in its shelter and then write a short response about "what else the animal needs."
    - Topic 1, *Objects,* provides the leveled topic readers Exploring Matter, Objects and Patterns, and Matter in the Sky. The students participate in a shared writing activity in Experience 1 of Topic 1. The teacher writes on the board students' responses as they use their senses to describe how they think a tree stump presented in a photo would feel, smell, and look and if they think it makes noise. The students have the opportunity to record observations on an activity sheet as they explore objects hidden in a bag with their sense of touch then draw and describe an object that is blue in a literacy station.
    - Each topic contains three leveled readers' texts to support student learning within a topic. The students have opportunities to participate in shared and independent writing as they participate in discussions throughout the topic and record their observations in station activities.
- Embedded sidebars throughout the materials provide the teachers guidance in supporting students' thinking and acting as scientists and engineers. Guidance is provided for the teacher to support thinking like a scientist by analyzing situations as they reflect on how they use objects' physical properties to solve everyday problems.
- Every topic has an Anchoring Phenomenon Video that supports student sensemaking through thinking and acting like a scientist to develop an explanation. Students watch and respond to a short Anchoring Phenomenon Video that shows a phenomenon or engineering problem related to the topic's scientific concepts. Students are prompted to consider the phenomenon or engineering problem and then encouraged to think and act as a scientist or an engineer to solve the problem. As students progress through the experiences, they use related sensemaking activities to help them answer the Anchoring Phenomenon question.
    - In Topic 4, students use the Anchoring Phenomena Video to explain how they know what to wear by observing the weather and seasonal patterns. The teacher materials state, "Lead a discussion about what is happening in the video. Accept all ideas at this time. As students compare the sensemaking activities in this topic, they will return to the Anchoring Phenomenon with greater clarity. Remind students that learning, like science, is an iterative process. It's okay to start with one idea and revise your ideas as you get more information."
- Teacher materials include hands-on station options to support student sensemaking through thinking and acting like scientists and engineers. The hands-on station includes a hands-on station card and companion activity that support sensemaking through reading, writing, and thinking activities. The hands-on station card and companion activity have embedded discussion and writing prompts related to the Scientific and Engineering Practices that allow students opportunities to make predictions; collect observations and measurements as evidence; record and organize data; or communicate explanations and solutions which provide students opportunities to think and act as scientists and engineers. In Topic 5, Experience 1, the hands-on station asks, "How can you describe and sort these rocks?" Students select an observable property, such as size, shape, color, or texture, and sort the rocks into two groups; rocks that have the property and rocks that do not have the property. Students record their findings in their science journals.

Savvas Learning Texas Experience Science Grade K

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 include 3 grade-level topic readers for each topic to provide opportunities to gather evidence and develop a deep understanding of concepts covered within the topic. These activities provide opportunities for students to engage in reading scientific informational text and writing activities to gather evidence and develop and extend their understanding of concepts.
    - For example, the *Light and Shadows* topic includes vocabulary cards for bright, dim, and shadows that are introduced prior to students reading the books *Things That Glow, Light Around Us,* and *What Are Shadows*. The students use these books to gather evidence about light, the concepts of bright and dim, and shadows.
    - Topic readers may be used at the beginning, during, or end of a topic. Accompanying topic reader activities include three graphic organizers that engage students in writing and gathering evidence. Topic 4, *Patterns in the Sky,* includes the readers *The Sky, Sunlight,* and *Earth's Weather.*
- The materials include literacy stations for each experience that provide opportunities for students to engage in purposeful and targeted activities with grade-level appropriate scientific texts to gather evidence and develop an understanding of the concept taught.
    - Topic 6, *Plants*, includes three literacy stations that contain purposeful activities tied to an included text. For example, a station in Experience 1 suggests students complete an activity after exploring plant parts in a station where the students read *Plant Parts* and match plant parts to what the part does. The teacher asks, "Where do you find fruit on a plant?" and "What detail do you see about roots?" to guide student thinking.
    - The Read About It text provides opportunities for students to engage with grade-level appropriate scientific texts. The literacy station card and companion activity provide students with a place to gather evidence and develop an understanding of concepts with embedded writing and discussion prompts.
    - The Teacher's Guide provides support for teachers to guide student thinking to help them develop an understanding of concepts. Topic 1, Experience 1, includes a literacy station that helps students answer the question, "How can you describe an object?" The students use the Read About It texts to practice identifying and using words that name categories such as color, shape, and textures.
- The materials consistently support students' understanding of concepts through reading by including topic readers and topic reader activities students can utilize to think about and make further sense of the topic.
    - For example, Topic 7 contains Animals Readers, including texts about *Animals and Plants,* which "covers different structures and physical features of plants and animals," *Living Things*, which "covers the sizes of a variety of animals and the different ways they move in their environment," and *At the Pond,* which "covers the different plants and animals that live and the pond and how they interact with their habitat." The topic reader activity: *Animals* contains several graphic organizers students can use. For example, one is a Create a New Idea chart where students determine a Topic Reader Detail and a Read About It Detail and synthesize the two "details together to draw a new idea." Another example is the Draw About Text chart. Students are encouraged to "draw a picture and label it to show what they learned" after reading one or more of the topic readers.

- For example, Topic 4 includes three recommendations for topic readers: *Sunlight, The Sky,* and *Earth's Weather*. It also includes four recommended trade books: *Mae Among the Stars, Every Breath We Take, Next Time You See a Cloud,* and *Look Up With Me*.

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 opportunities for students to communicate thinking on scientific concepts in written and graphic modes as they write, draw, and create graphic organizers in their notebooks.
  - For example, in Topic 3, *Lights and Shadows,* students work in pairs to record how they use light every day, record their observations as they compare what they can see in a shoebox under different light conditions, and record their observations as they watch a story acted out with puppets between a light and a screen.
  - Topic 5 includes opportunities for students to engage in written and graphic modes of communication to support students as they learn about rocks, soil, and water. Students engage in activities such as choosing an object to examine and then drawing a picture of the object and labeling it with the names of the materials used to make it. Students also draw a rock they might see in Texas and write two observable properties after reading *Rocks* in a literacy station. Students make drawings of their observations on a nature walk.
  - Every experience has a Key Ideas Presentation and companion activity including dynamic images or illustrations with narrative text to support students in developing an understanding of scientific concepts. Activity slides provide students opportunities to interact with images, illustrations, graphic organizers, and text boxes to support students in developing and displaying an understanding of scientific concepts. The Key Ideas companion activity provides illustrations, graphic organizers, drawing space, or write-on lines to support students in developing explanations of scientific concepts. In Topic 7: *Animals*, Experience 1, students label how an animal uses its body parts. In Experience 2, students draw to show how an animal uses shelter and writes what else the animal needs.
  - In Topic 6, Experience 2, students walk outdoors to observe plants. Students draw two plants and describe how much sunlight and space they receive. Students can also produce a video of their walk, pointing out a few examples of plants they have found and the needs they have identified.
  - For example, in Topic 4, Experience 1, students use photos to compare objects in the day and night skies as they notice and draw photos of the different features. The experience also uses the Key Ideas Presentation, Key Ideas Video, and the WalkSTEM activities as opportunities for students to communicate the topic in written and graphic models.
  - In Topic 2, students use the literacy card titled “What is a Magnet?” In this activity, students read, record, and describe their learning about magnets.
  - Each topic provides literacy station cards that include an activity for students to develop and display their understanding. For example, in Topic 7: *Animals*, the literacy station card is titled, "What are the needs of animals?" The card has a visual of a wolf and cubs howling and a numbered sequence to guide the students on what they are to do. For

example, "1 Read Find facts about animal needs; 2 Describe Draw an animal; 3 Identify Write what your animal needs to live." Also on the literacy station card is a What You Need box that shows students and teachers what they will need to complete the station. In this example, it is a Read About It booklet and the literacy station activity sheet.

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 provide authentic student engagement and perseverance of concepts through productive struggle while acting as scientists and engineers as they engage in lessons guiding them to construct explanations of how and why phenomena occur.
    - In Experience 1: *Magnets,* students are shown a variety of metal and nonmetal objects the teacher places in a bag. The teacher then asks how they can remove some objects without using their hands. After the students answer, the teacher places the magnet in the bag and pulls objects from the bag. The students then describe the items that were pulled from the bag. The students move on to a station with a magnet with objects such as an eraser, wood block, metal paper clips, metal nuts and bolts, and a small metal toy. The students predict which items a magnet will pick up and then test their predictions. As the students explore, the teacher asks questions such as: "What will the magnet pick up?", "How will you use the materials to answer this question?", and "What did you observe when you brought the magnet close to a metal object? A wood object?" The students record their findings in a chart by their predictions.
    - In Topic 6, students observe plants' needs for sunlight, air, and water over the course of three days while recording their results. To guide student planning, the teacher guides students to put a plant in a dark place to explore the effect of no sunlight, to rub petroleum jelly on leaves to block air and to not water a plant to observe the impact of no water. The teacher also explains the concept of control in an experiment while explaining the control plant will have all those needs met. As the students are recording their observations, the teacher asks the student to develop an explanation of their observations.
    - Materials are designed around the 5E model and inquiry-based science to support students in acting as scientists. Inquiry-based science requires students to think critically to solve problems and develop analytical thinking as well as problem-solving skills.
    - Every topic has an Anchoring Phenomenon Video that allows 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. Students watch and respond to a short Anchoring Phenomenon Video that shows a phenomenon or engineering problem related to the topic’s scientific concepts. Students are prompted to consider the phenomenon or engineering problem and then encouraged to think and act as a scientist or an engineer to solve the problem. As students progress through the three experiences, they will use related sensemaking activities to help them answer the Anchoring Phenomenon question. In Topic 6, students use the Anchoring Phenomena Video to explain why plants look and smell the way they do. The teacher materials state “Lead a discussion about what is happening in the video. Accept all ideas at this time. As students compare the sensemaking activities in this topic, they will return to the Anchoring Phenomenon with greater clarity. Remind students that learning, like science,

is an iterative process. It's okay to start with one idea and revise your ideas as you get more information."

- The materials create transfer opportunities for students to take what they have learned and use it flexibly in new situations.
    - For example, students learn how to classify objects in Topic 1 and then apply this knowledge as they learn about which objects are magnetic and nonmagnetic in Topic 2. They can also transfer what they have learned about plant parts and how each part serves a purpose to assist them when they are learning about animal parts in the next topic.
    - In Topic 5, students watch and respond to a short Anchoring Phenomenon Video about materials, such as rock, clay, soil, and minerals that are used to make objects such as pottery. Students learn about rocks and other natural resources and in Experience 1, students observe, describe, and classify rocks by size, shape, color, and texture. In Experience 2, they observe and give examples of how people use rocks, soil, and water every day.
    - Teachers have access to exit tickets for each experience that support students to act as scientists and engineers who learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle through quick assessment prompts after students interact with experience assets. Exit tickets are designed to be assigned, completed, and collected in a short amount of time. Teachers can gauge and guide student mastery of concepts by reading and referring back to students' exit ticket responses throughout a Topic. In Topic 5, Experience 2, students observe the final slide of the Key Ideas Presentation and identify where natural resources are being used in the picture. Students can write their answers in their Science Notebooks, or students can circle and label the natural resources in a printed copy of the slide.
    - The materials' pedagogical framework is designed around the 5E model, phenomena, stations, and inquiry-based science. In the Explore portion of the lessons, students "may conduct experiments, gather data, or work in groups to solve a problem." In the Elaborate phase, "students apply their new knowledge to real-world situations. This stage can involve projects, case studies, or simulations." The materials are also focused on phenomena. "Phenomena are an effective tool for engaging students in the science classroom and promoting scientific literacy. By providing a real-world context for scientific concepts, phenomena can help students develop critical thinking skills, improve their ability to collaborate and communicate, and foster a deeper understanding of scientific concepts." Within each topic, the materials integrate stations. "Stations promote active learning by engaging students in hands-on activities and experiments. This can help students develop critical thinking and problem-solving skills." Finally, the materials support students to act as scientists through the inquiry-based science approach. "Inquiry-based science requires students to think critically and solve problems. This can help them develop problem-solving skills and analytical thinking."

Savvas Learning Texas Experience Science Grade K

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/or verbal arguments that justify explanations to phenomena and 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.

- Activities in the materials prompt students to use their observations as evidence to support their claim and support their thinking. In Topic 1, Experience 1 hands-on station Card, "What is it?", students make observations to describe an object. This activity provides evidence for students to discuss the photo entitled, "Why can we describe this object in more than one way?" during stations. They use their evidence to support their claim.
- An activity in Topic 2, *Magnets and Motion,* "What will a magnet pick up?" prompts students to circle objects they predict a magnet will pick up and provides drawings of a stuffed toy, paper clips, a set of nuts and bolts, and wooden blocks. Students test objects with a magnet in a station and then circle pictures of items the magnet picked up as their evidence. The students use the evidence collected to color pictures of items they believe a magnet will pick up.
- After engaging in an anchoring phenomenon question, students collect evidence to support their hypotheses as they progress through the experiences. Topic 2, *Magnets and Motion,* is centered around the anchoring phenomenon, "How can we sort these objects faster?" Experience 1, *Magnets*, includes hands-on and literacy stations to help students collect evidence as they discover how magnets pull some objects out of a bag. Students explore how magnets sometimes push each other away and pull on metal objects in Experience 2, *Push and Pull*. They

use the evidence collected in these two experiences to support their hypothesis and answer the anchoring phenomenon question.

- Materials provide opportunities for students to develop how to use evidence to support their claims during the lessons using the 5E model within each topic. In Topic 5, students watch and respond to a short video about materials, such as rock, clay, soil, water, concrete, and minerals, that are used to make objects, such as bridges, roads, and pottery. Students learn about rocks, soil, and water as they go through the experiences. At the end of Experience 1, the teacher shows a picture of some pottery and revisits the anchoring phenomenon by posing a question to the students: “Where do you think we get the materials to make these objects?” At the end of Experience 2, the teacher shows the video again and asks, “Are any of the materials used to make these objects natural resources? Which ones?”
- Materials include activities to prompt students to use their observations as evidence to support their claims. For Example, in Topic 5, Experience 2, the hands-on station asks the students to walk outside the school to observe the ways rocks, soil, and water are used. They make a drawing of what was observed and share it with a partner in the classroom. At the end of the activity, students revisit the anchoring phenomenon and the question presented. The teacher encourages them to discuss with a partner any new understanding they have about the phenomenon.

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

- The literacy stations embed opportunities to develop and utilize scientific vocabulary in context. Read About it texts included in the literacy stations highlight the keyword in a sentence defining the word. The Read About It text titled *Light From the Sun* highlights the word light in the sentence, "Light is a form of energy." The word shadow is highlighted in, "A shadow is a dark shape. It is made when an object blocks light," in the Read about it text titled *Shadows*.
- Materials include embedded opportunities to develop and utilize scientific vocabulary in context by using multiple representations. Student materials provide students with opportunities to use vocabulary cards that include the word and simple definitions to build vocabulary.
    - In each experience, vocabulary terms are introduced to students in context as bold and highlighted terms in the Read About It. The Topic 1, Experience 2, Read About It titled *Properties of Objects* introduces the terms property and classify in the context of the text. The text says, “A property is what you can observe about an object. Color is a property. To classify is to sort objects. You can classify objects by color.” The students interact with the Read About It text after having first-hand experience in the hands-on station: “How can you sort objects?”
    - Topic 3, Experience 1, includes the word light as one of the vocabulary words. The teacher introduces the vocabulary card and adds it to the vocabulary wall. The students use illustrations and texts to clarify the meaning during the literacy station. Students read and reread *Light*, and the teacher models and uses photos and text, such as bright and dime to clarify the meaning.
    - Students work with content vocabulary within songs in the Hip Hop Science Song that is found in each topic's Wrap-Up section. The song and accompanying video "helps students reinforce their understanding of weather." For example, in Topic 4, *Patterns in the Sky*, the Hip Hop Science Song: *Weather* includes words and visuals such as rainy, sunny, forecast, and observe. A stanza from the song is: "I go to watch the news to see the forecast. Scientists can predict what type of weather we’ll have. They observe and

record the things that matter. When it happens over and over then they call it a pattern."

- Topics include illustrated vocabulary cards for students to see, read and define science and academic vocabulary terms. Teachers use the cards for word walls and small group vocabulary-building activities. For example, in Topic 5, Experience 1, students work on the student book page titled “Vocabulary Rocks” as they cut vocabulary words and definitions: rock, rough, and smooth. Students use this activity to reinforce vocabulary for the *Rocks* experience.
- Topic 6, Experience 2 words and definitions are “nutrients- materials that help plants grow, space- a place that is big enough for a plant to meet its needs, survive-live.” These words and definitions are revisited in Read About It, *Needs of Plants*. It says, “Nutrients are materials that help living things grow. Plants need nutrients to survive.” Students also apply the words in context in the Explore part of the experience when they draw a plant and what it needs to survive.

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

- Students are introduced to scientific arguments through the Anchoring Phenomenon Videos and questions in a classroom discussion to engage them and develop content knowledge. The teacher guides the students to make a verbal claim or argument. The students use the evidence collected through their experiences within the topic to revise their claims and to support their final claims through discourse.
  - In Topic 1, students watch the Anchoring Phenomenon Video about classifying objects and respond to the question, “How can we organize these things?” The Teacher’s Guide prompts the students to think about “How are items in a grocery store arranged? Why do you think they are placed that way?” After Experience 1, students discuss “What are some ways that objects are alike?” At the conclusion of Experience 2, they discuss, “Who can think of a new way to organize, or classify, these things?” In the topic wrap-up, students revise their thinking to answer, “How can we organize these things?”
  - In Topic 3, *Lights and Shadows*, students begin with a video of a water lantern festival and form their hypotheses as they answer the anchoring phenomenon question, "What are the lanterns made of that let us see them in the dark?" Students engage in whole group and partner discussions throughout the lessons that lead to the topic wrap-up. After a second viewing of the video of a water lantern festival, the students discuss their findings as they answer the anchoring phenomenon question.
  - In Topic 5, students watch and respond to a short video about natural materials that are used to make a variety of common objects and build large structures such as buildings and bridges. The teacher leads a class discussion by asking, “What are these objects made of?” During the experiences, students collect evidence as they observe, describe, and classify rocks by their size, shape, color, and texture. Students observe how people use rocks, soil, and water every day and give examples of these uses. At the end of the topic, students revisit the video with more information and participate in a class discussion that answers, “What are these objects made of? How do we use Earth's materials in our everyday life?”
  - In Topic 5, Experience 2, *Explore*, on the sidebar, a note titled *Thinking Like a Scientist* addresses learning in a respectful way by stating, “Remind students of the importance

of listening to the ideas and arguments of others. Point out that scientists often collaborate and that one important part of collaboration is letting a partner speak without interruption. Students may find that they disagree on some ideas; explain that not sharing the same opinion or observation is okay. When disagreements arise, scientists work together to reexamine evidence to determine what conclusions to draw."

- The Teacher Guide Topic Launch prompts teachers to lead a classroom discussion that engages students and develops their content knowledge. It also provides support to launch the anchoring phenomenon and guides students to make a verbal claim or argument. The included videos and questions introduce students to the concept of scientific arguments. At the end of every experience, students revise their arguments relating to the anchoring phenomenon by using evidence from the experience. In the topic wrap-up, students use the evidence they collected to make a final argument for their claim.
- The Teacher's Guide includes a Mastering Scientific and Engineering Practices, which provides teachers with strategies to assist students in making the connection using observations made to support an argument. For example, Topic 5, Experience 2, includes the following strategy: "Use Pictures Explain to students that drawing to record information is different from drawing for pleasure. When you draw to record observations, accuracy is important so that another person viewing your picture will be able to recognize the specific information you are conveying. Point out that scientists frequently draw diagrams and sketches of what they see, even when they also might record their observations in words. Ask 'How would a scientist's drawing of a flower be different from a drawing of a flower for pleasure?'"

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.

- Students have opportunities to construct and present developmentally appropriate verbal arguments to justify explanations of phenomena and solutions to problems using evidence acquired in the station activities. The materials provide criteria for developmentally appropriate arguments to explain a phenomenon or defend a solution to problems using evidence acquired from learning experiences. Materials provide opportunities for students to construct and present written/verbal arguments.
  - In Topic 1, the Experience 2 hands-on station activity, "Which objects go together?", students use a plan and conduct an investigation to demonstrate how to sort a group of buttons. The Teacher's Guide includes directions to describe the expectations for the classroom structure during stations. It states, "Say: We will listen to each other's ideas respectfully as we group buttons in the hands-on activity. We will be sure everyone in a group has a turn in the hands-on activity." In the Guide Student Planning section, it reminds teachers to suppose that some buttons do not fit in either group: "How would you solve this problem?"
  - Students construct verbal arguments throughout the topic as they explore what would make sorting objects easier or faster at a recycling plant as their anchoring phenomenon in Topic 2. The students present their ideas after watching a video of objects at a recycling plant. As they progress through the experiences, they revisit their hypotheses

and use the evidence from stations to support or adjust their thinking. After the stations in Experience 1, *Magnets*, students discuss, "How can magnets help sort some objects?"

- Students have opportunities to construct and present developmentally appropriate written arguments to justify explanations of phenomena using evidence acquired in station activities. After station activities in Experience 1, Topic 2, *Force and Motion*, students observe an illustration of a magnet and a set of nuts and bolts. The students draw their predictions of what will happen based on what they learned from the stations' evidence.
- In the Teacher's Guide, each topic has one anchoring phenomenon that is introduced with a video that provides strategies to assist students in constructing verbal arguments. Once launched, teachers lead a discussion where students compose verbal arguments to share. Progression is provided to show how each experience and everyday phenomenon connects back. Throughout the topic, they are given further opportunities to discuss and engage in verbal arguments. After they complete the Explore Station activities and learn about key ideas, students use the evidence they acquire to justify explanations for the everyday and anchoring phenomena.
- In Topic 5, Experience 1, hands-on station, students take a walk outside their school to observe how soil, rocks, and water are used in the area. Students draw and share their observations to justify explanations of phenomena using evidence acquired. Drawing and sharing for kindergarten is age-appropriate.
- Topics include STEAM activities providing students with opportunities to develop and evaluate solutions to problems using evidence acquired from their learning. For example, Topic 7, Experience 1, includes a STEAM activity requiring students to make an animal mask. Students design, construct, and display an animal mask. As students display their masks, they talk about the various body parts and the function of each one toward helping the animal interact with its environment.

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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 Key Ideas presentation in the Explain section of each experience provides teacher guidance on anticipating student responses and the use of questioning to deepen student understanding. In Topic 1, *Objects*, Experience 1, the materials list questions, such as, "What can you tell about these rocks?" with the possible response, "The rocks are round. The rocks are smooth. The rocks are gray and blue. Some have brown spots." The Teacher Support notes include suggestions for vocabulary support by suggesting students describe the texture of the food on their tongue at lunch. As an exit ticket, students are asked, "What is texture?" A sample answer provided is, "Texture is how an object feels."
- In Topic 2, *Force and Motion*, the Experience 1 PowerPoint "Magnets" includes a slide with the question, "Which objects did the magnet pick up?" and the sentence stem, "In my investigation, the magnet picked up." Teacher notes provide guidance to help the students see the pattern of all objects that were picked up are metal. The following slide provides possible student answers. Notes provide the definition of a magnet to support vocabulary and guidance for misconceptions as students may become confused when a magnet will not pick up a metal object such as a coin or silverware. The teacher holds up a metal key, a metal toy car, and an eraser and asks, "Which objects did the magnet pick up? Why?" The notes state that students should be able to answer that the key and car would be picked up because they are metal.

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- The teacher asks, "How can I make shapes appear on a wall?" after showing them a puppet and lamp in Topic 3, *Light and Shadows*, Experience 2. The materials provide the sample answer, "You could put the puppets between the light and the screen." The teacher places the puppet between the lamp and the wall and then asks, "What do you see? Why do you think this is happening?" The sample answer provided is, "I'm seeing the puppets' shadow on the screen because they are blocking the light."
- Each topic begins with an Anchoring Phenomenon Launch, which guides teachers on the use of questioning. For example, in Topic 4, *Patterns in the Sky, Launch*, the lesson begins with guidance for teachers, "students will have different levels of experience with deciding what to wear based on the weather, so begin with some open-ended classroom prompts." The materials then guide teachers to "Ask: When you look out the windows at your home, what do you see outside and in the sky?; Share your experience with choosing clothes to wear on different days.; and, Why do we wear different types of clothes in different seasons?"
- The Anchoring Phenomenon provides teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. For example, students watch the video about natural materials in Topic 5, *Rocks, Soils, and Water*. Materials guide teachers ask, "What are these objects made of?" Materials prompt teachers on how to guide students: "Do not explain to students what they are watching or give information on the materials used. Lead a class discussion about what students think is happening in the video. Accept all ideas at this time. As students complete the sense-making activities on this topic, they will return to the Anchoring Phenomenon with greater clarity. Remind students that learning, like science, is an iterative process. Point out that it's okay to start with one idea and then revise or even discard it as you get more information."
- Materials provide teacher guidance and provide sample answers throughout the Teacher's Guide. For example, in the Topic 5, *Rocks, Soils, and Water*, Experience 2, exit ticket, the teacher asks, "Are any of the materials used to make these objects natural resources? Which ones?" "Sample answer: Clay, used to make pottery, is a kind of soil. The mud used to make bricks comes from soil, rocks, and water. Rock and water can be mixed to make roads."
- In the Engage section of Topic 6, *Plants*, Experience 2, the materials provide teacher responses to possible student responses, including how to build on students' thinking. The students view a photo of a dead plant and a living plant. The materials prompt the teacher to ask, "Why does the plant look like this? What do you think happened?" The sample answer listed is, "The plant did not get enough water." The materials also include teacher support for a discussion about what plants need to live.
- The materials provide an Anchoring Phenomenon Video that students watch and respond to in a class discussion. "Lead a class discussion about what students think is happening in the video." Guidance is provided about how students may answer, and teachers are guided to "Accept all ideas at this time. As students compare the sense-making activities in this topic, they will return to the Anchoring Phenomenon with greater clarity." Guidance is also given in the form of which questions to lead the discussion. "Ask: How does it feel outside when the sun shines and there are green leaves on the trees? How does it feel outside when it is windy and there may be ice or snow on the ground and there are no leaves on the trees?"

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

- In Topic 1, *Objects*, the materials provide teachers with a topic launch that previews for the teacher the vocabulary used in the unit. The materials direct the teacher to introduce and read through the vocabulary card as a class and suggest creating a class mural that includes the words and shows objects in their home or community. The words for Topic 1 are *classify, material, observe, property,* and *texture*.
- Topic 2, *Force and Motion*, includes vocabulary cards for *attract, interact, magnet, push,* and *pull*. The teacher works with the class to decide how to add the vocabulary cards to a vocabulary word wall. One suggestion provided is to put the words they know on one side, words they think they know in the middle, and words they need to learn on the other side.
- The literacy station section in Topic 2, *Force and Motion*, Experience 1, includes teacher guidance to support students' development and use of scientific vocabulary in context. "As students read and reread the book *Magnets*, model how to use the photos and text to clarify word meanings."
- The vocabulary of the topic is highlighted in the Key Ideas Presentation, and teachers are given guidance on ways to support student vocabulary development. For example, in Topic 4, *Patterns in the Sky*, Experience 2, *Weather*, the materials guide teachers to "have students play a game of Three Questions. Each student silently chooses a vocabulary word and gives a partner the chance to ask three questions to determine what the word is."
- The materials provide a "Vocabulary in Context" sidebar support throughout modules in the Teacher's Guide. The sidebar support alerts teachers of exclusive opportunities for students to use scientific vocabulary in context. In Topic 6, *Plants*, Experience 2, students discuss possible reasons for what plants need. The sidebar support states that the teacher should direct their attention to the results from a prior experiment and use the terms survive and nutrients as they respond.
- Materials provide Vocabulary Support boxes that guide teachers on scaffolding instruction to develop students' vocabulary. "Students will encounter the word data in this experience." The guidance continues by instructing teachers to write a variety of data on the board, such as 10 years, shiny insect, or 5 meters, and ask students, "Which of these is data?" Teachers are then told to "point out that data is information or facts that can be used to make a decision or inform an opinion. Tell students that they record data when they complete the activities in this experience."

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

- In the Topic 1, *Objects*, Experience 1, literacy station, the materials provide teacher guidance for student discourse and support students in using evidence to construct a verbal claim. The Guide Student Thinking section directs teachers to model how to identify and use words that name categories and provides sample think-aloud such as, "I see on page 5 that color, size, and shape are properties. The crayons are different colors. The activity asks me to draw and color a blue object. I know that one of the crayons in the picture is blue, so I will draw a blue crayon." The materials direct the teacher to have students apply their new knowledge from the station to the everyday phenomenon, "Why can we describe this object in more than one way?" Students discuss with a partner any new understandings to revise their ideas and thinking.

- The Teacher's Guide provides teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims in the literacy station. For example, Topic 5, *Rocks, Soil, and Water*, Experience 1, guides the teacher on how to set up the station, what to expect from the students, and how to guide students' thinking. Students explore the Read About It text and identify words that name categories. They draw a rock they might see in Texas and write two observable properties to describe the rock.
- Materials provide teacher guidance on preparing student discourse and supporting students in using evidence in written and verbal responses. The Teacher's Guide includes directions for the exit ticket activities on how to support students' responses. For example, the Topic 5, *Rocks, Soils, and Water*, Experience 2, exit ticket activity in the Explore section asks for the teacher to "display or project a photo of a stone fountain surrounded by a garden. Have students identify the resources in the photo and how they are being used. Collect exit tickets and refer to them throughout the experience."
- Teachers are provided guidance on supporting student discourse and constructing evidence-based claims. For example, in Topic 5, *Rocks, Soil, and Water*, Experience 1, *Rocks*, teachers are guided to "Have volunteers share what they learned in the stations, citing evidence and observations."
- In Topic 6, *Plants*, Experience 3, the Teacher's Guide provides support and guidance to teachers to encourage student verbal discourse and apply what they learned in stations to the everyday phenomenon of a seedling seen in the Engage section. This is after students have completed the hands-on station, "How do plants change?" in which students observe a seedling and an adult plant, and the literacy station, "How does a plant grow and change?" in which students explore the Read About It, *Plant Life Cycles*. The Revisit the Everyday Phenomenon section suggests, "Have students apply what they learned in the stations to the everyday phenomenon," and "Students may want to discuss with a partner any new understandings they have about the phenomenon."
- Materials include slides to prepare students for discourse and the use of evidence to construct claims. The presentation includes how to investigate and design, analyze data, use tools, develop and use models, use math, and test their design. It also focuses on how sciences explain phenomena and how they design solutions to problems. "Scientists communicate. They share what they know with others. They listen to each other." Students are prompted to "communicate with a partner" to share their knowledge about elephants and eagles.

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

- Materials provide support and guidance for teachers in facilitating and sharing students' thinking and finding solutions in each experience. The materials support and guide teachers in facilitating the students' thinking and finding solutions in the Teacher's Guide. Within the Explore phase of each module, materials provide feedback strategies teachers can use to help students share their learning.
- In the Explore section of Topic 1, *Objects*, Experience 1, students put their hands in a bag without looking and use their sense of touch to identify the object. When students explore, the materials direct the teacher to ask probing questions, such as, "How will you use your senses to answer this question?" and "What can you observe from just picking up the bag?" to help students make sense of how to describe and identify the object.

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- The Teacher's Guides provides notes throughout the 5E model activities. The Revisit Anchor Phenomenon notes provide questions, sample answers, and notes on what to expect to facilitate students' thinking. The Evaluate section in Topic 1, *Objects*, Experience 1, questions are" "Where do you think we get the materials to make these objects? Could you use rocks to build an object? What would you build?" The sample answers are that they could build a wall or a house. The What to Expect section states: "Students' thinking should reflect that rocks are materials that can be used to build objects." Then the teacher leads a brief discussion if students are unclear about the concept.
- Topic 2, *Force and Motion*, Experience 1, includes questions, "How can I pull some objects from a bag without using my hands? (Accept all answers but guide students toward using the magnet to move some objects made of metal.)" as part of an Engage demonstration. The teacher asks, "What did you see move? Where is it moving to?" and "What did you observe when you brought the magnet close to a metal object? A wood object?" as part of a hands-on exploration. After the station, the teacher asks partners to discuss, "How can some objects be pulled from a bag without using your hands?" The students share with partners what they learned in stations, citing evidence and observations, as part of the explain section of the lesson. Guidance for the teacher includes, "Help students see a pattern among the different items that are picked up: They are all metal."
- Topic 3, *Light and Shadows*, Experience 2, provides support and guidance for teachers in facilitating and sharing student thinking and finding solutions throughout the lesson. The teacher engages students with a demonstration of making a shadow with a puppet in front of a lamp and asks, "What do you see? Why do you think this is happening? Sample answer: I'm seeing the puppets' shadows on the screen because they are blocking the light." The teacher has students draw their observations in their science notebooks. The teacher asks partners to share, "How can you make shapes appear on the wall?" after completing station activities. The teacher shows the students an apple and flashlight and then asks them to draw as an exit ticket what they would expect to see on the wall if the flashlight was shining on the apple.
- The Teacher's Guide notes provide support and guidance for teachers to facilitate the sharing of students' thinking. The ELPS Targeted Support notes are one example; they guide and support teachers on how to ask questions and provide suggestions on what to do for all levels of bilingual students. For example, Topic 5, *Rocks, Soils, and Water,* Experience 2, encourages teachers to ask students to share ideas on the Anchoring Phenomenon Video. Suggested activities for students are the following: For beginners, the teacher stops the video at different points, and students write single words or short phrases in their Science Notebook. For intermediate, the teacher stops the video at a key point and asks simple questions, and students write in their Science Journal. For advanced/advance high, students expand upon their answers and write in their Science Notebook.
- In Topic 6, *Plants*, Experience 2, students complete a Walk STEM activity in which they observe plants in the neighborhood. The materials guide the teacher to allow students to present their findings to the class or produce a video of their walk that points out plants and their needs.
- In Topic 6, *Plants*, Experience 1, *Plant Parts*, the Related Phenomenon sidebar in the Engage section facilitates the sharing of students' thinking. Teachers are guided to bring a potted plant and uproot it, allowing students to observe. "Allow students to examine the plant parts while keeping the Everyday Phenomenon question in mind as they think about and explain the functions of the different plant parts." Students then explain the different functions of each plant part. The Elaborate section of the lesson contains a STEAM activity, Build a Model Plant. Students build and label a model plant and then "describe the function of each part to partners or to the class."

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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 diagnostic, formative, and summative assessments that include formal and informal opportunities to assess student learning in a variety of formats. Materials assess all student expectations and indicate which student expectations are assessed. Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts. Materials include assessments that require students to apply knowledge and skills to novel contexts.

Evidence includes but is not limited to:

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

- The materials include formative assessments in a variety of formats to assess student learning. For example, the Topic 1, Objects, Experience 2, Classify Objects Key Ideas Presentation includes presentation notes providing teachers with question prompts to elicit student discussion about the key ideas and includes a student-facing activity that allows teachers to formally assess student understanding. Questions include, “How are these objects sorted?” and “How are your groups alike and different?” The student-facing activity has students classify objects by shape. After a magnet demonstration in Topic 2, Magnets and Motion, Experience 1, the teacher uses an exit ticket to assess students' prior knowledge about magnets. The teacher displays a variety of magnets and allows students to test the magnets on items around the room and asks, "What is the same about the objects that stick to the magnets?" After station activities, the teacher uses an informal assessment by asking students to give a thumbs up or thumbs down to statements such as, "A magnet will stick to a wooden block," or, "A magnet will move a metal key."
- Materials use exit tickets throughout the 5E model lessons as formative evaluation opportunities to assess students' learning. Topic 5, Rock, Soil and Water, Experience 1, Rocks, includes an exit ticket after the Literacy Station, which prompts the teacher to ask, "How many different ways can we sort these rocks?" Students apply what they learn during a discussion with a partner. The exit ticket at the end of the Experience allows students to work individually

or as partners to make a list of how rocks are different. Students participate in a class discussion when they revisit the Anchoring Phenomenon by answering, "Could you use rocks to build an object?" and "What would you build?"

- Each lesson and Experience is built on the 5E model, and the last section of this model is Evaluate. In each Evaluate section, the materials provide a formative assessment in the form of a Check for Understanding by revisiting the Anchoring Phenomenon, an Experience Quiz, or an exit ticket. For example, in Topic 4, Experience 1, The Sky, the Evaluate section includes an exit ticket that will "determine if students need help understanding what objects can be seen in the day and the night sky, or if they need help understanding the patterns of the day sky and the night sky." The additional formative assessment is in the Revisit Anchoring Phenomenon, "How do you know what to wear?" After completing the experience activities, students "revisit and share their updated thoughts about this Anchoring Phenomenon" question.
- The materials include opportunities for summative assessments at the end of each topic. Each topic includes a multiple-choice and short constructed response test at the end of the topic that may be utilized online or printed and copied for student use. For example, Topic 2, Force and Motion, includes a 6-question multiple-choice test with questions such as, "You drop a metal paperclip on the floor. It goes under a desk. Can you use a magnet to find it? How do you know? Choose all correct answers. A. No B. Yes C. The magnet will push the paper clip. D. The Paperclip is made of metal. " The online version of the test provides a score summary, shows correct/incorrect answers, and areas in which the student needs additional practice. The short constructed response in Topic 2 includes an illustration of a toy train, a pencil, and a spoon. The test question states, "You play with a wooden train set. The first car has a magnet. You pull the train across a desk. It moves by a pencil and a metal spoon. Which magnet will the magnet attract? How do you know?" A space is provided for the student to type a response online or write a response if the test is printed. The printable Topic 6 Plants Test includes six multiple-choice questions that include, "How is a young plant like a parent plant?" and when shown a picture of a strawberry plant, "Which part of the plant are fruits?"
- Each topic includes an Auto-Graded summative Test that assesses the mastery of concepts presented in the topic. Tests include multiple-choice and technology-enhanced questions. The Open-Response Topic Test allows students to practice their test-taking writing skills. Both tests are available as digital versions and editable documents. Topic 5 Rock test "Rock, Soil, and Water" includes 6 questions on how you can classify rocks and how we use rocks, soil, and water every day.
- The Topic Wrap-Up of each unit provides an online summative test that "assesses mastery of concepts presented in the topic." For example, the Test: Patterns in the Sky contains 6 multiple-choice and multiple-answer questions focusing on the main ideas in the topic: experiences, changes in day and night, wind, weather changes, and seasons.
- The materials utilize a variety of exit tickets as a diagnostic assessment tool to assess prior knowledge and learning gained in each experience. Materials state that it includes a Diagnostic assessment in a teacher-led discussion presented during the Anchoring Phenomenon and Everyday Phenomenon. For example, in Topic 2, Magnets and Motion, Experience 1, students draw pictures of the items pulled from a bag by a magnet in an Engage demonstration. The students describe how these objects are different from the items that remain in the bag. Guidance is provided for the teacher to collect these as exit tickets and refer to them throughout the experience. Additionally, during the teacher-led discussions, students get an opportunity to explain their knowledge of the topic to be presented by responding to questions presented by the teacher. Topic 5 question is, "Where do you think we can get the materials to

make these objects?" Exit tickets only measure a small snapshot of information and are not a progress-over-time assessment that would effectively monitor student growth/gains over time.

- The materials include summative assessments to assess student learning in a variety of formats. Each topic contains an Editable Short Constructed Response Test, which is "an editable and printable version of the short constructed response topic assessment, which assesses mastery of concepts presented in the investigation." For example, for Topic 7, Animals, the assessment, which can be taken online or printed, is a picture of giraffes and elephants around a watering hole. The prompt asks students to "Name two things these animals need to live. Tell why animals need them." A space is provided for students to write or type their answers.
- The front matter of the teacher materials lists "Entry-level and Readiness Assessments" as available diagnostic tools. They are available on online and print platforms for short topic-centered diagnostics.

Materials assess all student expectations and indicate which student expectations are assessed.

- The materials contain a correlation indicating where each TEKS is addressed in the Teacher's Guide. The TEKS correlation lists the pages in the Student Activity Guide and Teacher's Guide where the individual TEKS is addressed. The guide also states, "Corresponding Digital Resources and Assessments" after the list of pages that address the TEKS.
- The materials include end-of-topic assessments covering TEKS over the duration of the course. The online materials that include the assessments clearly state the TEKS being assessed and include a hyperlink to a description of those TEKS. Topic 2, Magnets and Motion, includes a multiple-choice and a short-answer topic test to gauge student learning about magnets. Topic 3, Light and Shadows, includes two assessments to determine student learning about light as described in the specific TEKS.
- The Teacher's Guide includes a Texas Essential Knowledge and Skills Grade K Correlation that provides a resource where teachers can identify where each TEKS is taught and assessed. The correlation shows that each student's expectation is assessed through multiple activities in both the Student and Teacher's Guide Material, including Hands-On Activities, Key Ideas Presentations, STEAM activities, Literacy Stations, and assessments.
- The Topic Wrap-Up page of the teacher online platform lists the standards for the topic. In Topic 6, Plants, the Topic Wrap-Up lists where these standards are hyperlinked to open a pop-up that shows the student's expectations.
- Materials assess all students' expectations as outlined in the TEKS for each grade level. Materials include a cohesive scope and sequence that maps out and outlines what will be taught in a specific grade and topic. The Teacher’s Guide includes TEKS-aligned assessments designed to measure student understanding and mastery of the concepts and skills taught during the topic. Topic 5, Rock, Soil, Water, teaches and assesses the following: Describe and classify rocks by the observable properties of size, shape, color, and texture, and Observe and generate examples of practical uses for rocks, soil, and water.
- Throughout Topic 5, Rock, Soil, and Water, students connect the big ideas to kindergarten standards. The Topic Test includes 6 questions that address the same TEKS covered in the topic. For example, one of the multiple-choice questions asks the students to look at some pictures and answer the question, “How are these rocks sorted?”
- Each Topic Wrap-Up has a "folder (that) contains the topic assessment and wrap-up materials." The TEKS are listed in the folder containing all wrap-up materials, including the assessments. Additionally, the online test has a kebab menu that provides an Information tab that includes a description of the assessment, the standards it covers, and the keywords. For example, in the

Test: Patterns in the Sky, the standards are directly aligned with the six assessment questions on the test for the Patterns in the Sky topics.

- All content is assessed through the Topic Wrap-Up Assessments. For example, the Earth and Space TEKS are divided into Topic 4, Patterns in the Sky, which covers The Sky, Weather, and Seasons, and Topic 5, Rocks, Soil, and Water, which covers Rocks and Use of Earth Materials. Each Topic suggests a Topic Assessment be given after the completion of topic lessons covering all TEKS. A customizable short-answer response assessment that addresses one or more of the TEKS in the topic.
- Accommodations provided/suggested are reading testing materials aloud and accepting verbal responses.

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

- Each topic includes assessments that require students to integrate scientific knowledge and science and engineering practices with each theme that is appropriate to the student expectation being taught. For example, in Topic 1, Objects, the students are shown a black-and-white drawing of objects on a tray, including an orange, a sponge, coins, cheese, and blocks. Students are to write a response to the question, “How can you sort these objects?” Topic 2, Magnets and Motion, includes a short constructed response topic test that integrates TEKS, where students investigate and predict cause and effect relationships in science and predict which objects a magnet on the back of a toy train will attract when pulled across a desk. Students use TEKS as they identify and use patterns they discovered about light energy to design a solution to discover if light will travel through a balloon, a brick, and a glass in a short constructed response test for Topic 3, Light and Shadows. Topic 5, Rock, Soil and Water, Open Response test asks students to look at some pictures of ways to use water at home and asks them to write two ways how they use water at home. The Topic Wrap-Up page of the teacher online platform lists the standards for the topic. In Topic 6, Plants and Animals, the Topic Wrap-Up lists. These standards are hyperlinked to open a pop-up that shows the student's expectations. The Topic 7, Animals, phenomenon question is, "Why does a pelican have a large mouth and wings?"
- At the end of the unit, teachers are guided to ask students, "How does the pelican's mouth help it to survive?" At this point, the students should be able to "identify that the size and shape of its mouth helps it catch and carry fish as it flies." Students also watch a video and have a class discussion of what is happening in the video. "Now that students have completed a topic's worth of experiences and activities, they should be able to explain the scenes in the video using more detail and vocabulary than they could when they first watched it."
- After each experience, the materials provide an exit ticket that relates to the Phenomenon question. For example, Topic 7, Animals, contains two experiences to assist students in answering, "Why does a pelican have a large mouth and wings?" Experience 1, Animal Parts, allows students to "observe parts of animals and begin to connect how animals meet their needs with specific animal structures," and Experience 2, Needs of Animals, lets "students observe that animals need to breathe and begin to connect animal needs with specific animal structures." The exit ticket question for Experience 1 is, "How does a bird use its mouth?" and the exit ticket question for Experience 2 is, "What do animals need to live?"
- STEAM activities included in the materials provide project-based assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts.

Students design a tool to pick up trash out of a river in a STEAM activity included in Topic 2, Magnets and Motion, Experience 1, Magnets. The activity allows students to apply scientific and engineering practices standards and the recurring themes and concepts TEKS along with knowledge about magnets gained in the experience to design their pick-up tool. For example, in Topic 5, Rock, Soil and Water, Experience 2, Use of Earth Materials, the STEAM activity asks students to work in pairs to design and create a book about the natural resources they observe during the Hands-on Station.

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

- Materials include assessments throughout each topic that require students to apply knowledge and skills to novel contexts. WalkSTEM activities require students to apply knowledge and skills to novel contexts. In Topic 1, Objects, Experience 1, Properties of Objects, STEAM activity, Make a poster, students apply their knowledge and skills related to the properties of matter by making a poster of the materials they find in school. In Topic 2, Magnets and Motion, Experience 1, Magnets, students make observations about which objects a magnet will pick up in a Hands-on station. The students gain further knowledge in a literacy station as they read the text Magnets. The students apply the knowledge and skills gained to a key ideas discussion as they answer which objects could be picked up by a magnet in a photo, including a variety of metal and nonmetal objects. The students may also apply their knowledge to a STEAM activity as they design a pick-up tool using a magnet.
- Students also apply the knowledge and skills gained in Topic 3, Light and Shadows, Experience 2, Shadows, to a WalkSTEM activity in the optional Elaborate portion of the experience. Students predict where in the school they might find shadows and take a walk around the school to find the shadows. The teacher then asks students where they might find a shadow that moves.
- Each Experience provides students with opportunities to apply TEKS and SEPs to novel contexts through activities within the Hands-On Lab. For example, in Topic 4, Experience 2, Weather, students design and carry out an investigation using weather tools, including a thermometer, rain gauge, and wind sock. Students use the tools to make observations and collect data for several days. They record their results and share them with the class.
- The materials provide STEAM activities that require students to apply knowledge to novel contexts. In Topic 4, Experience 3, STEAM activity, students apply their knowledge of seasons to create a collage of activities they can do during their favorite season. For example, Topic 5, Rock, Soil and Water, Experience 2, Use of Earth Materials, Hands-on-Station, How do we use rocks, soil, and water? students observe rocks, soil, and water during a walk outside the school. Students draw their observations and share how people use them.
- Each topic includes assessments that require students to apply knowledge and skills to novel contexts. One example is the Open Response test included at the end of each topic that integrates scientific concepts and SEPS within the theme. The Topic 5, Rock, Soil, and Water, Open Response test asks students to look at some pictures of ways to use water at home and asks them to write two ways how they use water at home.
- Each Experience allows students to apply TEKS and SEPs to novel contexts through activities that include a Hands-On Station. In Topic 6, Plants, Experience 3, Plant Life Cycles Hands-On Activity, How do plants change? students observe a seedling and an adult plant and identify the parts of each. They then draw both plants and label the plant parts using a word bank.

Savvas Learning Texas Experience Science Grade K

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 an online multiple-choice summative assessment after each topic that is automatically graded when submitted and provides areas the student needs more practice. The Topic 2, Magnets and Motion, topic test lists two areas the student needs more practice with when all answers are marked incorrect: "Magnets attract some metals and materials made from metals," and "Describe what magnets attract." After submitting the short constructed response, the score summary states that the teacher will score the response, and the student needs practice with describing what magnets attract and that "Magnets attract some metals and materials made from the metals." The Topic 3, Light and Shadows, online topic test provides the following as areas the student needs more practice if all answers are marked incorrect when submitted, "Light can pass through materials completely, partially, or be blocked (transparent, translucent, or opaque). A shadow is created when light is blocked by a material. Recognize that light energy can be seen. Objects must give off light or be illuminated by light to be seen. Electric and magnetic(electromagnetic) forces can be attractive or repulsive."
- The Topic Test Short Constructed Response Answer Key guides teachers to look for specific components when evaluating student responses. The Topic 1 Assessment shows a drawing of several items on a tray. The sample answer says, "I can use texture, shape, or material to sort the objects. I can use shape, for example, to classify the objects. If I use shape, I can organize all

round objects together. I can organize all square items together, I can also organize all triangular objects together." The key includes a scoring rubric that explains that students can earn a point for explaining how texture can be used to sort, one point for explaining how shape can be used, and one point for explaining how an object's material can be used.

- Each activity worksheet is accompanied by a Teacher Support document containing answers to help score and evaluate student responses. The Topic 6 Key Ideas Activity provides an answer key that properly labels the plant parts: flowers trunk, leaf, fruit, and root.
- At the end of each topic, after students take the Topic Test, the Teacher's Guide on the digital platform includes a Topic Test Remediation suggestion. Topic 5, Rocks, Soil, and Water, includes "For students who struggle on the Rocks, Soil, and Water Topic Test, consult the corresponding Topic Test Remediation Document. The remediation document lists certain assets for topic content review and contains simple and foundational questions about topic content." Materials also include test bank questions that can be used by teachers when planning interventions or extensions.
- Each topic includes a Key Ideas Presentation that provides information that guides teachers in evaluating students' responses. The PowerPoint presentations include teachers' support on the notes section of each screen, such as how to guide students' discussion and suggestions on how to address misconceptions about students' responses. The Teacher's Guide provides notes on how to check for students' sensemaking. The teacher asks for volunteers to share what they learned and asks them to cite evidence and observations. The teacher uses the text, images, and questions in the presentation to teach and assess Key Ideas, as well as emphasize the vocabulary words through the presentations allowing students to define them in their own words to evaluate their responses.
- The materials provide What to Expect guidance within the Evaluate section of each experience. This section under the Revisit Anchoring Phenomenon section gives guidance to teachers about what students should focus on with their responses. For example, in Topic 7, Experience 1, teachers are guided that "students' thinking should reflect an understanding of how different body parts enable an animal to survive in its environment."
- The materials provide an Answer Key for the Topic Tests and Short Constructed Response Tests. The Answer Key provides a sample answer and scoring rubric for key points that should be included in their responses. For example, the Short Constructed Response Test for Animals asks students to view an image of giraffes and elephants near a watering hole. It then asks, "Name two things these animals need to live. Tell why animals need them." A sample answer is given that describes animals needing food, water, and shelter to live. The Scoring Rubric advises giving 1 point if the "Student identifies one resource needed for survival," and 1 point if the "Student identifies a second resource needed for survival." The Key also provides the Depth of Knowledge Level and the TEKS addressed.

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 teachers' analysis of assessment data through their online platform, Savvas Realize. The dashboard provided will allow the teacher to access class results by assignment or standard, provided the assignment was completed online. When viewing the data by standard, the teacher may click on the standard for a pop-up that states the TEKS and provides a link to resources provided for the TEKS. The teacher is able to view individual student

data by assignment. There is an option for the teacher to choose to auto-assign remediation and enrichment activities to the student upon completion of the online assignments. There was no access to these activities.

- The materials provide a one-page document with hyperlinks to videos designed to support the teacher in using the assessments and data online. Videos included for assessments are: "How to Build a Test," and "How to Use a Test Bank." The videos to support the teacher in the analysis of data include "Data Overview Video, Score Data Overview Video, Class Results by Assignment video, and Class Mastery by Standard Video."
- Materials provide guidance documents and resources to support teachers' analysis of assessment data on the Savvas Realize site. The Realize Assessment and Data Support include videos on Data Overview, Score Data Overview, Class Results by Assignment, and Class Mastery by Standard. Data can be analyzed by assignment or by standard, as a class or as an individual. The site includes help for the teacher to interpret data and suggests resources to assist in remediation.
- Materials provide guidance and tools to support teachers in responding to data to inform instruction. The assessment tools result in data reports that inform instruction and facilitate tracking of students' progress toward skill mastery. Teachers can view customized reports by skill, by students, or by class.
- The Class Mastery by Standard help video shows teachers how to analyze an individual student's overall mastery percentage based on the assignments to date as well as how many questions they have answered correctly for each assessed standard in the online assessment system.
- Teacher-provided guidance and tools support in responding to data to inform instruction. When one clicks on the standard at the top, there is another hyperlink for additional resources.
- Materials include a Realize Assessment and Data Support tab providing teachers with Data Reporting Support videos. One of the videos is Class Mastery by Standard. This shows teachers how to use the online platform to view student progress and achievement in any of the standards where online assessments through the platform have been given. The video explains that within the data tab of the online platform, teachers can click Class Mastery by Standard and view the percentage of students who mastered each standard as well as individual student standard mastery. When teachers click on an individual standard, an option is available to "Help me interpret this data."
- Teachers have access to quick-view options that graph class and individual student data. Within this tab, teachers can view Standard Analysis, which breaks up each standard on an assessment or across assessments, Question Analysis, which shows a quick view of correct responses by question, Student Analysis, which shows "student performance on the assignment and its questions," and Performance Analysis, which "automatically groups students based on their performance on the assignment." Once students are grouped, there is the option for teachers to "Assign Resources" to assist in remediation.

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

- The online platform includes assessment tools that provide teachers with information to use when planning interventions and extensions. A color-coded graph displaying the average scores on the assignment enables the teacher to see at a glance the percentage of students that have achieved mastery of the TEKS. The teacher can view individual student performance by viewing the assignments by student section, pulling up an individual student, and selecting the

assignment they wish to view. The teacher is able to see the student score and provide comments for feedback to the students. When viewing the assessments by standards, the teacher is quickly able to identify which students need intervention with scores below 70% listed in red and which students are ready for extensions with scores above 70% listed in green.

- The Savvas Digital User Guide and the Realize Help video Data Overview provide an overview for teachers on how data reports can be used for planning instruction and differentiation. Student data can be viewed by assignment or by standard. When reviewing score data for assignments, teachers will see a color-coded report that shows average scores on completed tests. From this view, teachers can drill down to each completed test to analyze individual student responses. The information in these reports helps teachers readily monitor class progress and make the necessary adjustments for intervention and/or extension.
- The Class Results by Assignment provides a tab for Performance Analysis that automatically groups students based on their performance. Once the students are grouped, the teacher can select resources for remediation or enrichment.
- Exit tickets provided throughout the experiences provide information for teachers to use to plan instruction, intervention, and extensions as the students progress through the experiences. Topic 2, Magnets and Motion, Experience 1, includes an exit ticket in the Engage section as students describe how the objects pulled from a bag by a magnet differ from the objects that remained in the bag. Exit tickets are included in the Explore and Explain sections to gauge student progress. In a final exit ticket in the Evaluate section, the teacher asks students to indicate by thumbs up or thumbs down if an item pointed to could be picked up by a magnet.
- The Teacher's Guide contains informal exit tickets at the end of the Engage, Explore, and Explain phases of the 5E instructional model. The exit tickets provide a variety of prompts and question types that help teachers to gather observational data. The data can be used to plan interventions or for future core instruction. Topic 6's exit tickets include students drawing a plant and using vocabulary cards to label it, filling in the sentence frame, "In order to survive, plants need _____," and writing or drawing how a young plant is like a mature plant.
- At the end of each topic, after students take the Topic Test, the Teacher's Guide includes a Topic Test Remediation suggestion. Topic 5, Rocks, Soil, and Water, includes "For students who struggle on the Rocks, Soil, and Water Topic Test, consult the corresponding Topic Test Remediation Document. The remediation document lists certain assets for topic content review and contains simple and foundational questions about topic content." Materials also include test bank questions that can be used by teachers when planning interventions or extensions.
- Each Topic Test has a kebab that allows the teacher to access Information about the assessment, including a description of the assessment and the statement that "Students who perform at a low level will be automatically assigned a document to help them understand the content," the standards addressed in the test, and keywords that appear in the test or the answers within the test. Another option from the kebob menu is Remediation. This link gives the teacher access to Test Reviews for each major concept in the Topic. For example, for the Patterns in the Sky "skill and remediation" activities, a Test Review is available for four topic concepts including, "Daily changes in day and night follow regular patterns, Demonstrate that air is all around us and observe that wind is moving air, Observe and describe weather changes from day to day and over seasons, and The sun makes the day sky bright." These Test Reviews list the major concepts and serve as an intervention or review for students who did not master the concepts on the test.

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

- Teachers can utilize the Digital Learning Platform to identify areas students need additional intervention. Activities to address intervention or enrichment needs can be accessed through the standards tab on the digital dashboard. The activities can be assigned to students based on their needs. The activities available are the same activities included in the experiences.
- Each Explain section includes a Key Ideas Video to help illustrate and reinforce concepts that students may struggle to understand. Topic 2, Magnets and Motion, Experience 1, Magnets, includes a video showing additional examples and explanations of magnets. Topic 2, Magnets and Motion, Experience 2, Push and Pull, includes a video with additional examples of how magnets can push and pull objects.
- The Teacher's Guide provides Differentiate Instruction as a resource for teachers to use in responding to performance data. Teachers can integrate these activities at the point of use or return to these suggestions if data suggest students are having difficulty or need a challenge. These notes provide suggestions for ways teachers can help students who are struggling, as well as students who might benefit from a challenge. The Topic 1, Experience 2, Differentiated Instruction suggests challenging students to identify their category when sorting objects.
- The Digital Learning Platform provides teacher guidance for responding to student data. After teachers view the student data reports in the Data tab on the Digital Learning Platform to identify standards or questions with low student performance, they can utilize the Search function on the platform to find and filter activities that may help students with the identified deficiencies. The search features are described in the Savvas Digital User Guide.
- Materials provide a variety of student resources for the teacher to use in responding to performance data. Materials provide direct instruction for science concepts using the 5E model. The following resources are included in every Experience: Everyday Phenomenon Photo/Video/Demonstration, Hands-on Station, Literacy Station, Key Ideas Presentations/Activities, STEAM Activities, and exit tickets. The resources include teacher guidance, for example, Topic 5, Rocks, Soil, and Water, Experience 1, Rocks, Everyday Phenomenon Demonstration, How many different ways can we sort these rocks? provides instructions for the teacher to set up and do the demonstration. It also provides questions for teachers to use during a class discussion.
- Materials provide PowerPoint presentations as a resource for teachers to respond to performance data. Each experience provides ready-to-use PowerPoint presentations that include teacher support notes, discussion questions/ideas, suggestions on how to address misconceptions, and a try-it-out! section that includes ideas that students can do to learn more about the topic.
- Materials provide a variety of student resources for teachers to use in responding to performance data. The materials provide vocabulary cards, topic readers on three different Lexile levels, Anchoring Phenomenon videos, and experience activities that take students through a progression of understanding of the phenomenon for the topic. Within each Experience, the 5E model is followed, and there are a variety of resources for each portion of the experience. The materials include teacher demonstrations, hands-on station activities with station cards, literacy station activities with station cards, a Key Ideas presentation, a Key Ideas video, and a STEAM activity or WalkSTEM activity.
- A Topic Test Review (remediation) document is provided as guidance for responding to student data for the Topic Tests. The resource explains in detail the answers to the Topic Test questions

and supporting concepts for each test item. For example, for the Test: Patterns in the Sky, four "skill and remediation" activities provide concepts for "Daily changes in day and night follow regular patterns, Demonstrate that air is all around us and observe that wind is moving air, Observe and describe weather changes from day to day and over seasons, and The sun makes the day sky bright."

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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. Material includes assessment items that are aligned with taught objectives, concepts, and recurring themes. For example, a summative assessment for Topic 2, Magnets and Motion, accurately avoids the phrase "sticks to" and instead uses the terms push and pull throughout the topic test. The term attract is accurately used instead of "sticks to" in a short constructed response in Topic 2.
- The Topic 1 Objects Test includes assessment items that align with taught objectives and present grade-level content and concepts in a scientifically accurate way. Question 3 states, “A lemon is round and yellow. A banana is long and yellow. Which property is the same?” The materials correctly identify the answer as “color.”
- The Topic 6 Plants Test contains items for the grade level or course that avoid bias and includes diverse names and genders in questions. Question 1 uses an example of a female student named “Lexi.” Question 6 uses an example of a male student named Ali.
- In Topic 5, Rocks, Soil, and Water, the topic test includes the question, "Rock is a hard material from Earth. It can be used to____." Students choose the correct answer to complete the statement from what they learned about rocks during Experience 1, Rocks.
- Topic 5, Rocks, Soil, and Water, includes pictures in their hands-on and literacy stations that present individuals of diverse backgrounds as student scientists. The hands-on station in Experience 2, Use of Earth Materials, includes a picture of a group of individuals representing diversity.

- Assessments included in the materials contain items that are scientifically accurate. For example, in Topic 7, Animals Test, there is a picture of a deer drinking water from a pond. The question asks, "The deer needs to drink____." The choices the students choose from are "rocks, soil, sunlight, and water."
- The short-constructed response items are scientifically accurate. In Topic 7, the Short Constructed Response Test: Animals shows a picture of a tree and grass-covered savanna with elephants and giraffes drinking from a pond. The question posed to the students is, "Name two things these animals need to live. Tell why animals need them."

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

- The Topic 1 Objects Test Assessments contains pictures and graphics that are developmentally appropriate. One question includes a black-and-white drawing of a girl sorting round and square blocks. This image helps students answer the question, “Ana sorts blocks. She sorts square and round blocks. How does Ana sort the blocks?”
- The summative Topic 2, Magnets and Motion, tests contain black-line drawings of bar magnets with north and south clearly indicated, a crane with a large magnet over a pile of objects, and a horseshoe magnet and metal screw. The short constructed response in Topic 2 includes clear black-line drawings of a spoon, a pencil, and a toy train. Although it is not visible in the drawing, the test question includes that the first car has a magnet. The drawings include enough for students to answer the questions without extra items that would be visually distracting. Additionally, the topic test in Topic 2, Magnets and Motion, includes graphics of magnets that are clearly labeled with the N and S side. Another graphic includes labeled magnets and arrows to show movement.
- The Topic 4 Patterns in the Sky Test contains clear and grade-appropriate black-and-white pictures and graphs in five out of the six questions. The remaining question does not contain a graphic. For example, one question contains a weather chart for Monday through Friday. The symbols in the chart are simple and clear graphics of a sun, a cloud with raindrops, and a cloud with snowflakes. It asks the students to choose the correct sentences about the weather for the week. One question asks students, "Which object shows the wind is blowing?" The pictures provided clearly show a flag waving, two different wind socks hanging straight down, and a palm tree that is clearly being blown by the forceful wind.
- In Topic 5, Rocks, Soil, and Water, the topic test includes a question where students need to pick the answer from a group of four pictures: a bus, a boat, a train, and an airplane. The drawings of the pictures are clearly shown and an appropriate size for the grade level.
- The Topic 6 Plants Test Assessments contain pictures and graphics that are developmentally appropriate. A question includes a black-and-white drawing of a strawberry plant that is clearly numbered to show the parts that the student needs to identify to answer, “Which parts of the plant are fruit?”
- The Topic 7 Animals Test contains clear and grade-appropriate black-and-white pictures and graphs in four out of the five questions. For example, one question contains a picture of a raccoon in a hole in the trunk of a tree. It asks the students to choose the correct answer to fill in the blank: "The picture shows that the raccoon needs _____ to live." A question asks students, "What is the hawk using in the picture?" The pictures provided clearly show a hawk with his wings and tail spread out flying.

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

- The formative assessments in the key ideas PowerPoint presentations include clear guidance for the teachers to administer them. Topic 2, Magnets and Motion, Experience 1, Magnets, includes a downloadable Key Ideas Presentation with teacher notes to support the administration of the exit ticket. The slide includes a photo of a variety of metal and nonmetal objects that would typically be found in a classroom. Examples of teacher support include, "Invite students to discuss the items in the photo as a group so that you can check student understanding about the materials the items are made from." The support includes possible responses: "The magnet might pick up or move toward the calculator, scissors, clock, and spiral edge of the notebook," and differentiation: "This slide can be printed and distributed to students. Students can circle the items that the magnet will move or pick up. "
- The materials include guidance for teachers to administer the summative multiple-choice topic tests. The Teacher's Guide indicates that five minutes should be allotted for this assessment and states, "Both tests are available as digital versions and editable documents."
- The digital platform provides guidance for teachers to administer summative topic assessments. Topic 2, Magnets and Motion, includes an information link with a pop-up to provide guidance for the teacher with each of the four assessment options. The guidance for the online multiple-choice test is, "This online test assesses mastery of concepts presented in the topic through questions that are graded automatically. Students who perform at a low level will be automatically assigned a document to help them understand the content." The printable multiple-choice test includes the description, "This is an editable and printable version of the topic assessment, which assesses the mastery of concepts presented in the investigation." The information provided with the short constructed response includes, "This online test assesses mastery of concepts presented in the topic by completing short-answer questions. Students who perform at a low level will be automatically assigned a document to help them understand the content."
- The Topic Wrap-Up page provides guidance on administering the Topic Test. Additional information is provided for using the Auto-Graded Test or the Open-Response Test and the formats in which they can be administered. Next to the titles of each of the assessments are icons that indicate the recommended time to allot, whether the tool is intended to be completed as an individual or group task, and whether the assessment tool is considered core (checkmark) or optional (plus sign). The Topic 1 Objects Test indicates it should take five minutes, it is designed for individual work, and it is considered core.
- The Topic Test answer key provides information that supports the teacher’s understanding of assessment tools. The Topic 1 Objects Test indicates the correct answers, the depth of knowledge for each item, and the TEKS addressed in each item. Question 1 asks students to look at the picture and decide how the objects are sorted. The answer key indicates the correct answer is by shape, that the depth of knowledge is 2, and the TEKS addressed.
- The online materials provide a Navigation Support link that includes Realize User Guide and Training Info and Realize Assessment and Data Support. The Assessment and Data Support link includes how to build a test and how to use a test bank.
- The materials provide instructions for teachers when administering an online test. The Topic 5 Rock, Soil, and Water online test instructions state that "This online test assesses mastery of concepts presented in the topic through questions that are graded automatically. Students who perform at a low level will be automatically assigned a document to help them understand the content."

- The materials provide guidance for consistent administration. Guidance for teachers is given in the Course Planner and Pacing Guide for when the Topic tests are given. For example, for Topic 4, Patterns in the Sky, the pacing guide suggests two pathways, one called "Fast Track" and one called "Got More Time?" On the Fast Track guide, the materials guide that the Topic Test should be given for a half day on Day 7 of the topic, and on the Got More Time? pathway, the Topic Test is given a whole day on Day 12 of the topic.
- The materials provide guidance on the description of the assessment tools. For example, for the Topic 7 Test, Animals, the materials guide the teacher that "This online test assesses the mastery of concepts presented in the topic through questions that are graded automatically. Students who perform at a low level will be automatically assigned a document to help them understand the content."

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

- Accommodations provided/suggested are reading testing materials aloud and accepting verbal responses. The materials offer the teacher options for modifying both the online and printable summative tests. The printable tests are Google Docs that the teacher can make a copy of in order to modify the test questions, reduce the number of questions, or reduce the number of possible responses. The online assessments provide a kebab menu with an option to customize the test. The customization options include changing the title and description of the test, a yes or no option for the test to count towards mastery, rearranging the order of the questions, removing some of the questions, and replacing or adding to the questions with questions from a test bank. The items in the test bank are the same questions included for the topic tests but would allow teachers to customize the test if they wished the assessment to cover more than one topic.
- The customizable assessments are available in Google Docs, which allows teachers to reduce the number of answer choices as an accommodation to help students of all abilities demonstrate mastery of learning goals. Google Docs is designed to work with screen readers as an accommodation to help students of all abilities demonstrate mastery of learning goals.
- The online materials provide a Navigation Support link that includes Realize User Guide and Training Info and Realize Assessment and Data Support. The Assessment and Data Support link includes how to build a test and how to use a test bank. Materials include an editable topic test that teachers can use to modify for students.
- The materials include a Navigation Support link. This link includes Realize User Guide and Training Info and Realize Assessment and Data Support. Within the Assessment and Data Support link, the materials include how to build a test and how to use a test bank.

Savvas Learning Texas Experience Science Grade K

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 still need to achieve mastery. Materials offer 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 include teacher guidance with each hands-on station activity for scaffolding instruction and differentiating activities for students still needing to achieve mastery. For example, Experience 1, in Topic 1, *Objects*, includes differentiated instruction to support students as they identify properties to guess what object is hidden in a bag. The student picks up the bag and feels the object's weight, shape, and sound before putting their hand in it. The teacher encourages students to verbalize their observations before guessing the object. The teacher guides student thinking by asking questions such as, "How will you use your senses to answer this question?", "What can you observe from just picking up the bag?", "What did you feel when you put your hand in the bag?", and "What do you think the object is?" In another hands-on station in Light and Shadows, the teacher models the sequence of steps and gives the students time to practice the correct procedure of looking through the hole in the box with just one eye. The guidance provided for the teacher in Experience 3, *Seasons*, to assist struggling students is to ask questions such as "In what season do you see flowers on trees?", "In what season do you see fruit on trees?", and "In what season do all the leaves fall off of trees?"
- In Topic 6, Experience 1, the materials guide the teacher to model using a hand lens for students who may be unfamiliar with its use. Teachers can pair students to observe the plant using the lens and provide extra time and support.
- Lessons include recommendations for downward scaffolds to support students in successful science learning and knowledge building under the heading "Differentiated Instruction." For example, in Topic 1, Experience 1, students use their senses to identify objects in a bag without looking. The Differentiated Instruction is titled "Support for Students." It states, "Explain that students will identify properties to guess what object is hidden in the bag. First, have a student

pick up the bag and describe the object's shape, sound, and weight inside. Then have the student put a hand inside to feel it. Encourage students to verbalize what they observe before guessing the object."

- Lessons include recommendations for downward scaffolds to support students in successful science learning and knowledge building under the headings "Address Misconceptions" and "Vocabulary Support." For example, in Topic 1, Experience 1, students draw a blue object and use words that identify other properties of the object. The Address Misconceptions box states, "Changing Shape: Students may think that objects with shapes that can change do not have properties that can be identified. Display a ball of toy slime or a similar product. As the material begins to change shape, point out that its changing shape is a property of the material." The Vocabulary Support box states, "Words in Context: Review with students that the word texture means 'how something feels.' Throughout the day, recognize any student who uses the word in a sentence. For example, you might ask students to describe the textures of their food on their tongue at lunch."
- The Topic Planner includes activities to personalize student learning. Some activities available to personalize student learning are STEAM and WalkSTEM activities. Topic 6 consists of these three activities: STEAM Activity, where students build a model plant using construction paper, chenille sticks, seeds, etc., a WalkSTEM Activity, where students observe plants in the neighborhood, and a STEAM Activity, where students make a Mural using plants.
- In Topic 4*, Patterns in the Sky,* there are targeted activities, including Literacy Station Card: Sky and station activity, What are some patterns in the sky?, a Read About It: The Sky, Vocabulary Activity Cards: The Sky, Hands-On Station Card, and Activity: What you can see in the sky?

Materials provide enrichment activities for all levels of learners.

- The materials provide several opportunities throughout the topics for enrichment activities that account for learner variability. The Teacher's Guide embeds suggestions for enrichment activities such as STEAM activities, challenge activities, WalkSTEM activities, and science songs. STEAM activities provide students with enrichment by having them apply knowledge of core content to act like engineers and scientists in imagined real-work scenarios. In contrast, WalkSTEM activities encourage teachers to observe real-world examples in the school or nature. These are "fun, place-based experiences highlighting inquiry-based STEM connections to real-world objects and spaces." The materials provide the teacher with step-by-step directions and ideas to plan based on their current facilities and surroundings and several links to collaborative platforms to assist with delivering these to students. For example, Topic 1, *Objects,* includes a STEAM activity creating a poster about textures, a WalkSTEM activity with students walking around the school to identify what materials objects are made of, and making a classroom chart sorting the objects into categories. A challenge activity asks students to classify buttons and objects into three categories or write a hip-hop song on matter.
- Additionally, in Topic 3, Experience 1, the WalkSTEAM activity asks students to walk and find where they can locate shadows at school. The students draw the shadows they observe in their science journals. Teacher materials suggest the teacher pose more complex problems for students to solve, such as Where could they find shadows that move? In Topic 4, Experience 2, students design and build a wind vane. Then students share and test their designs with their peers. Topic 6, *Plants*, includes STEAM activities to design and build a model plant and create a mural that shows the different stages of a plant's life cycle, a WalkSTEM activity to go on a nature walk to observe plants in various settings, a challenge activity using a hand lens to

explore other objects in the classroom, and drawing their observations after observing plant parts in the station.

- The Teacher's Guide embeds opportunities for students to observe, connect, and explore science concepts in their community with activities in "Take it Local" sidebars such as one in Topic 1, *Objects*, suggesting students go on a scavenger hunt around school looking for 5 to 7 objects with a predetermined property. Another activity in *Objects* suggests students classify the types of houses in their neighborhood by shape or color. In an activity in Topic 4, *The Patterns in the Sky*, the teacher takes the students on a walk around the school to look out windows and describe what they see in the sky. The teacher guides students to understand that the sky may look different depending on their location.
- Materials include Personalized Learning with Dynamic Digital Resources. The online resources support applying science and engineering practices, connecting concepts, and deepening understanding of core ideas. Resources include presentations, interactives, videos/audio, games, books/readers, practice, teacher support, and assessments.
- Within the Topic Launch, the Teacher's Guide provides an enrichment activity that centers on the Phenomenon within the Topic. The Related Phenomenon box has an additional or alternative activity for students to enrich their understanding of science concepts. For example, in Topic 4, *Patterns in the Sky,* the Related Phenomenon section, the materials suggest "have students draw pictures of what activities they might do during one of the many seasonal festivals in Texas."

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

- The Teacher's Guide includes recommendations within the experiences for just-in-time scaffolds to develop perseverance of learning in the moment. The materials embed a guided inquiry procedure within the hands-on station activity in Topic 2, *Magnets and Motion,* which provides the teacher with prompts for students such as, "Move the magnet toward one metal object," and "Use the magnet to touch other objects, one at a time." In another station within the same topic, guided inquiry prompts include, "Pick up the object that can make some other objects move" and "Make the paper clip move without touching it with your hands."
- The teacher materials include challenge activities through options for stations where students accelerate their learning. One challenge activity in Topic 3, *Light and Shadows,* encourages students to choose other materials, predict how they will interact with the light, and test their predictions. In Topic 4, *Patterns in the Sky,* students have a challenge with looking at additional pictures with different things in the sky to draw and label after a station activity drawing and labeling items they saw in a picture of the sky. In the same topic, students who show proficiency with the weather tools in a station are encouraged to design weather tools and explain how they would use them.
- The Teacher's Guide embeds just-in-time acceleration suggestions under the heading "Differentiated Instruction" to develop productive perseverance of learning in the moment. For example, Topic 1, Experience 1, includes the following guided inquiry steps to model and support the inquiry process: "Take turns being the investigator, Describe what you see, hear, or feel without putting your hand in the bag, Put your hand in the bag, Describe what you feel, Record what you observe on the activity sheet, and Guess what the object is." In Topic 1, Experience 2, the Differentiated Instruction states, "Challenge: Have groups of students classify buttons or other objects into three categories, such as round, square, and triangular. Allow groups to identify their own categories. Afterward, have groups compare how they classified the objects. Discuss that it is okay for classifications to vary as long as a group can identify the

properties they used to sort the objects." In Topic 4, Experience 1, the Differentiated Instruction states, "Challenge: For students ready for a challenge, give students photos of other daytime skies that look different from the one on the Hands-On Station Card. Challenge students to draw labeled pictures of them." In Topic 6, Experience 1, the materials ask the teacher to model using a hand lens for students who may be unfamiliar with its use. Teachers can pair students to observe the plant using the lens and provide extra time and support.

- Teacher suggestions shown in the Connect to Literacy inform teachers how to utilize the Literacy Station, the Hands-On Station, or the Vocabulary cards to provide just-in-time learning acceleration. For example, in Experience 1 in Topic 2, *Magnets*, the "Got More Time" activity is a STEAM Activity that guides students to "apply understanding of magnets" to design a tool to pick up metal objects from a river. In the same lesson, the literacy station activity focuses on the main ideas and details about magnets and what they can do, and the hands-on station focuses on predicting which objects can be picked up by a magnet. The vocabulary cards have a color picture and explanations "that will help students master the domain-specific vocabulary."

Savvas Learning Texas Experience Science Grade K

Indicator 7.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials engage students in the mastery of content through various developmentally appropriate instructional approaches as they progress through experiences following the 5E instructional model. Students can engage in classroom demonstrations, connections to scientific concepts in the real world, video clips, and images to introduce and reinforce specific science concepts. Students have the opportunity to engage in classroom demonstrations.
- In Topic 1, Experience 2, *Classify Objects*, the materials provide discussion questions to engage students in deeper thinking and discussion about the science content presented in the Everyday Phenomenon. The questions listed are: “Which object from the group has a similar property?” and “How is this object different from the two objects grouped together?” This activity starts with direct instruction to facilitate instruction and experiential learning later in the Experience.
- In Topic 2, *Force and Motion,* the experience begins with a demonstration of putting various objects in a bag and using a magnet to pull some of the objects out of the bag. In Topic 3, *Light and Shadows*, the teacher demonstrates how to create a shadow by putting a puppet between a lamp and the wall or a screen. The authors designed the topics around real-world phenomena, such as "How do we sort objects faster?" centered around sorting objects at a recycling plant.

Topic 2 includes an anchoring phenomenon video of a recycling plant, allowing students to make connections to their learning about magnets with many everyday examples of how we use magnets. A photo of two magnets pushing each other away when both ends are red and being drawn towards each other when one end is red and the other is blue is provided to engage students in thinking about what makes the magnets move.

- In Topic 2*, Force and Motion,* Experience 1, materials suggest students engage in a Hands-On Station exploring which type of materials a magnet will pick up. Then, students read *Magnets* and draw a magnet or an item that it picks up.
- In Experience 2, *Weather*, "students observe and describe that a weather forecast can predict what the weather might be in the near future." In Experience 3, *Seasons*, students "observe that in different seasons, the temperature and precipitation changes." The materials provide visual vocabulary cards for the topic and guide teachers to "add to a vocabulary word wall in your classroom for students to reference throughout the topic." The materials also encourage teachers to decide how to organize the word wall with their students, suggesting one method may be to organize it "according to words that students already know, words they think they know, and words they still need to learn."
- In Topic 4, *Patterns in the Sky*, lesson materials include inquiry-based, authentic tasks in which students use tools to measure and collect data. In Experience 2, when students use tools to measure and record the weather, materials include video clips to introduce and reinforce specific science concepts, such as the Anchoring Phenomenon Video about the weather in different seasons and the Everyday Phenomenon Demo Video of a weather forecast in Experience 2. Materials include educational game-based learning opportunities where students apply scientific knowledge via the Legends of Learning game.
- The lesson begins with discussion questions in Topic 4, *Patterns in the Sky*. Students engage with an overarching phenomenon question, "How do you know what to wear?" The materials provide an Anchoring Phenomenon video and teacher prompts for a classroom discussion, such as "How does it feel outside when the sun shines and there are green leaves on the trees?" Finally, the materials provide an Anchoring Phenomenon Progression with a series of Experiences.
- In Topic 4, *Patterns in the Sky*, Experience 1, The Sky, the Engage section includes an Everyday Phenomenon Photo to "activate student thinking about the patterns of day and night." The photo shows a city skyline during the day and at night. The Explore section provides a hands-on station where students use other images to compare objects in the day and night skies and a literacy station activity where students read to "predict and describe patterns of day and night." In the Explain/Elaborate sections, the materials provide a Key Ideas Presentation, Key Ideas Video, and a WalkSTEM activity where "students go on a walk and observe and draw objects they see in the sky." Finally, the materials provide an exit ticket to measure student mastery in the Evaluate section.
- In Topic 5, Experience 1, the teacher activates students' thinking by demonstrating how observable properties can sort rocks. Students use a hand lens to observe, classify and describe rocks. The Experience includes Read About It texts for students to practice identifying words that name categories, such as colors, shapes, and textures. Students watch a video clip to reinforce the concept and draw a picture of a rock and label its observable properties.

Savvas Learning Texas Experience Science Grade K

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

- The materials for each Topic consistently support flexible grouping. Throughout the program, there are multiple opportunities for students to work individually, with a partner, in small groups, or as a whole class.
- Experiences start with a whole group discussion that includes the Key Ideas Video. Every experience consists of an investigation activity called the hands-on station, STEAM Station, or STEAM activity, where students work in small groups. During investigations, students collaborate to plan, design, and conduct an experiment, design and build a model to solve an engineering problem, or answer a guiding question. In the Explore stage of each Experience, students work through a Revisit Everyday Phenomenon prompt in which they work with a partner to discuss new understandings about the phenomenon and revise questions. In Topic 5, students engage in a whole group discussion of the Anchoring Phenomenon Video about natural materials.
- In Experience 1, students work in groups to answer, “How can you describe and sort these rocks?” Students read the Read About It text about rocks individually and take the topic assessment. Both the hands-on and literacy stations are designed to be implemented in a collaborative (small group or partner) or independent format, depending on the needs of the students.
- In Topic 2, *Force and Motion*, Experience 1, in a whole group demonstration, students participate in picking up some items in a bag. Students can work independently or with partners as they explore which objects a magnet will pick up in a station. A literacy station option allows students to work as partners and describe a drawing of a magnet and things it can pick up after reading the text Magnets. Students discuss what they learned in a key ideas portion of the lesson that follows station activities. The authors designed a STEAM activity for students to create a pick-up tool in a small group setting.
- Topic 3, *Lights and Shadows,* supports flexible grouping throughout the topic. Students engage in whole-group instruction as they demonstrate how puppets placed between a light and a screen or board create shadows. They discuss how fireworks help us see at night as they create a mural about light and shadows while they participate in key ideas discussions. Students have the opportunity to work with partners to discuss the learning station question, “How do fireworks help us see at night?”, and as they discuss different sources of light, they observe in the key ideas video. Students have the opportunity to work independently when completing the student activity pages and participate in a hands-on station with a drawing of what they see in a box with different levels of light and coloring sources of light after participating in a literacy station and an optional STEAM activity creating a book of how their neighborhood looks during the day and at night.
- In Topic 5, Experience 1, the teacher presents the everyday phenomenon demo to the class. Materials state that the teacher shows the class six different rocks. The Experience continues with the hands-on station, where students can work in small groups or partners and describe and sort rocks. Students work individually on a STEAM activity, drawing a picture of a rock and labeling its observable properties.
- In Topic 5, teacher materials suggest teachers present and read through the Vocabulary Cards for natural resources, rock, rough, smooth, and soil as a whole class. Together they create a word wall organized as a concept map that students can use throughout the topic. The teacher has students select the word that goes at the center of the map and how they would organize the other terms. The class can reorganize the concept map during the topic as they learn more

about how the word is used in context. Students work together in small groups to examine the rocks during the stations.

- In Topic 4, Experience 2, students begin with a group discussion. Partners review station expectations and individually record their observations. The materials guide teachers to allow students to work individually or in pairs. Students discuss any new understandings about a phenomenon with a partner. After the stations, students "discuss with a partner any new understandings they have about a phenomenon."
- The teacher materials also support flexible student grouping to support language needs by suggesting groups and pairs when differentiating for emergent bilingual students. In Topic 3, Experience 1, students discuss the question, “How do fireworks help us see at night?” in a group setting.

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

- The materials support multiple types of practices (modeled, guided, independent, and collaborative).
- Lessons include modeled practice that often happens in the Engage portion of the Experiences through Everyday Phenomenon Demo Videos. Materials support guided practice during the Station Cards and use of Student Activity Companion sheets provided for each hands-on and literacy station activity.
- In Topic 1, students learn how to classify different objects. Model practice happens in the Engage section of the Experience during the Everyday Phenomenon. Materials guide teachers on how students identify observable physical properties of objects, including shape, color, texture, and materials. Using the Station Cards, the Student Activity Companion sheets, and the hands-on and Literacy stations. Students generate ways to classify objects based on physical properties.
- In Topic 5, Experience 2, the teacher activates students' thinking about how people use natural resources daily as she leads and models a discussion on an Everyday Phenomenon Photo. In this Experience, the teacher guides the students on a walk to observe and record uses of natural resources as they collaborate with classmates to share uses of natural resources. Students work independently by drawing uses of natural resources.
- In Topic 6, Experience 1, modeled practice happens in the Everyday Phenomenon Demo, in which the teacher places celery in different colors of water. Guided and collaborative practice occurs in the stations, including questions like, “What are plant parts?” and “What do plant parts do?” The materials contain independent practice during exit tickets, in which students explain why plants have different parts independently.
- In Topic 7, Experience 2, modeled practice happens in the Everyday Phenomenon Demo, in which the teacher demonstrates holding their breath and discusses why they cannot hold their breath longer. Guided and collaborative practice happens in the stations, including questions like, “What do animals need?” and “What are the needs of animals?” The materials contain independent practice during exit tickets, in which students explain in their own words why people cannot hold their breath longer.
- Invthe Topic 7, *Animals*, Experience 1, Animal Parts, Explore section, teachers are prompted to "Guide Student Planning" by explaining to students that "investigations can be used to answer a question." Materials guide teachers to read the Station Card's question aloud and then ask the students, "What must you do first in this activity to identify how the fish uses its body parts?"

and "What problems might you have as you complete the activity? How can you solve these problems?" During Literacy stations in this same Experience, the materials prompt students to read about animal parts, use the word "grasp" to write about a frog, and then read the sentence to a partner for feedback. Students complete the station work independently but may collaborate with a partner to share information and ideas.

- The materials provide guidance and structures to achieve effective implementation. The Teacher Guide materials for the Explain stage of each Experience provide guidance and structures to effectively implement guided practice through teacher notes about how to present content.
- In Topic 1, Experience 1, Key Ideas presentation, Classify Objects, bulleted step-by-step teacher instructions guide the teacher to provide objects to classify and to have students discuss how they classified in stations.
- In Topic 3, *Lights and Shadows*, the teacher models how to create a shadow by placing a puppet between a light and the board before the students independently use a flashlight, aluminum foil, wax paper, and black paper to try to block light and create a shadow. The materials provide the teacher guidance with questions to ask during the demonstration, such as, "How can I make shapes appear on the wall?", "What do you see?", and "Why is this happening?" Guiding questions provided in the hands-on station include, "How will you use the different materials to answer the question?", "How many materials will you test?", and "How will you know whether a material blocks light?" The materials include a guided inquiry procedure outlining the steps students need to use in their investigation to guide the teacher in assisting students that need help designing their investigation. Students collaboratively work as they take turns with a partner explaining what happens when light shines on objects such as a window, a teddy bear, or blocks.
- In Topic 2, *Shadows,* the teacher says," We will set goals for ourselves as we begin each activity in the station. We will be careful not to shine the flashlight in anyone's eyes during the hands-on station. We will read about how different objects can make shadows in the Literacy station. We will ask for help if we need it during the station."

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

- The topic readers included with the materials represent a diversity of communities in the images of people and places. For example, the topic reader, *Pushes and Pulls,* contains images reflecting different genders, ethnicities, and races. The photos reflect rural and suburban communities. The topic reader, *Energy and Forces*, contains images representing different genders and ethnicities. This reader also has a picture of a student with different abilities. The topic readers included in Topic 3, *Light Around Us, Things That Glow,* and *What are Shadows,* contain images that reflect different genders and ethnicities and images that reflect different areas in Texas.
- The videos and images in the materials reflect a diversity of communities and information about people and places. For example, the key ideas video Push and Pull in Topic 2, *Force and Motion,* represent both urban and rural communities; it also represents images within the video reflecting different races. The photos included on the station cards represent different genders and races.
- The Everyday Phenomenon Demo Videos represent diverse communities using images and information that are respectful and inclusive. Topic 1 shows a Caucasian male teacher, Topic 2 shows a Hispanic female teacher, Topic 3 shows an African American male teacher, Topic 4 shows a Caucasian female teacher, Topic 5 shows a Caucasian male teacher, Topic 6 shows an African American male teacher, and Topic 7 shows a Hispanic female teacher. The Station Cards

represent diverse communities using images and information that are respectful and inclusive. Topic 1, Experience 1, shows an African American girl, and Topic 1, Experience 2, shows a Hispanic girl with a Caucasian boy. Topic 2, Experience 1, shows an African American female teacher with an African American male student, a Caucasian male student, and a Caucasian female student. Topic 3, Experience 1, shows an Asian girl.

- Topic 3's Anchoring Phenomenon Video is of paper lanterns floating on water. One discussion bullet states, The Anchoring Phenomenon video reflects the regional custom in San Antonio of a water lantern festival held each October. Topic 4 shows rural areas in the Key Ideas presentation and the urban regions in the Everyday Phenomenon Photo.
- In Topic 5, Experience 2, the teacher activates students' thinking by asking them to compare two lakes as she leads and models a discussion on an Everyday Phenomenon Photo. Materials include guided, collaborative, and independent practices under the hands-on and literacy station. In this Experience, the teacher guides the students on recording, comparing, and sharing. Students collaborate with peers during the Revisit Everyday Phenomena when they get to discuss their new understanding of the phenomena after they finish the stations. Students work independently during the literacy station by answering questions about how the wind and water can change Earth's surface.
- The teachers leading the background videos reflect diversity in gender, race, and ethnicity. The materials depict different genders and ethnicities as the narrators of these videos. For example, the Teacher Background video for Topic 7, *Animals,* is led by a Caucasian male instructor, and Topic 6, *Plants,* is led by an African-American woman.
- Materials represent diverse communities using information that are respectful and inclusive. Materials use real-world examples and connections that illustrate diverse communities and places in Texas.
- Each topic includes an Every Day Phenomena Exploration that explores the wonders of Texas, such as Big Bend, the Hill Country, The Panhandle, The Gulf Coast, and The Piney Woods, for students to experience and investigate. For example, Topic 5 includes a Phenomena video “Where do you think we get the materials to make these objects?” This video shows the homes and bridges from different parts of Texas.
- The materials represent students from all backgrounds in the pictures of students for the station cards. The materials contain pictures and examples from urban and rural areas in the Weather unit. For example, the materials include an image of a cityscape to compare what students may see in the day compared to the night sky. The materials provide a picture of a rural area to compare what you may see at night in an urban area to a rural area.

Savvas Learning Texas Experience Science Grade K

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

Evidence includes but is not limited to:

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

- Materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the English Language Proficiency Standards (ELPS). Each Topic Planner includes the ELPS addressed in the topic. Each Experience consists of an ELPS Targeted Support during the Engage part of the lesson. The Teacher's Guide includes listening, reading, writing, and speaking support to help emergent bilingual students meet grade-level science content expectations. The guidance is included at point-of-use and scaffolded for beginning, intermediate, advanced, and advanced high students.
    - In the Engage section Topic 1, Experience 1, the ELPS Targeted Support states, "Beginning- Model a think-aloud for exploring the object. Have students repeat keywords and phrases, such as observe, object, and touch the object. Intermediate- Ask yes/no questions about the object in the photo, using words related to color, shape, and size. Have students listen and repeat after you. Materials suggest advanced students take turns describing the object's physical properties in the photo to help them with words that describe texture and material. Advanced high students take turns describing one of the objects using as many senses as they can."
    - In Topic 2, *Magnets and Motion*, Experience 1, *Magnet*, includes targeted support to help students to learn vocabulary heard in classroom instruction and interaction such as, "Beginning- Give students a magnet and paper clip or steel objects. As students manipulate the objects, as simple yes/no questions, repeating the word magnet." and,

"Advanced High- Give partners a magnet and other metal and nonmetal objects. Have pairs take turns sorting the objects and telling what the magnet can and can't pick up."

- A literacy station in Topic 2, *Magnets and Motion,* includes guidance for the teacher to have students use the Read About It text Push and Pull to practice using photos or illustrations to understand the text. Beginning students are requested to look at the visuals and explain how they help them to understand the text. Advanced students work as partners to take turns pointing to a picture and asking questions about it.
- Topic 5, Experience 1, the ELPS Targeted Support states, "Listening 21, Speaking 3G Write the words size, color, shape, and texture on the board. Say each word and have students repeat after you. Use the demo to guide students to recognize the words." Materials include scaffolded instructions on addressing it for beginners, intermediate, advanced, and advanced high. For example, the teacher asks yes/no questions about the objects' shapes and colors for intermediate. Materials suggest asking students to sort the object each way.
- The ELPS correlations chart in the Teacher's Guide helps teachers identify where the materials cover each ELP. For example, the Teacher's Guide contains a chart that states ELPS 3H, “Narrate, describe, and explain with increasing specificity and detail as more English is acquired.”
- The Teacher's Guide embeds scaffold for emergent bilingual students into lessons, such as visuals, sentence stems, and manipulatives. For example, in Topic 5, Experience 2, during the Engage section, the teacher shows a visual (photo) of the state capital and asks, "What types of materials do you think were used to build the State Capital? During the Explore section, teachers provide a sentence stem for students to use with partners. "In the Hands-on station, we will;____in the Literacy station, we will____." Students use manipulatives during the Explore section. They use a hand lens to observe rocks, plants, soil, etc., as they walk outside the school.
- In Experience 2, *Weather*, the ELPS Targeted Support for the Engage section focuses on Listening 2C. It guides teachers to "have students use the Everyday Phenomenon Demo to develop their vocabulary and conversational skills.” The materials give additional guidance for each level of beginning, intermediate, and advanced/advanced high. For example, for students at the beginning level, teachers are guided to "have students draw icons from sunny, rainy, cloudy, and snowy. Help students write labels for their icons." Partners then practice saying the words and pointing to icons. For students in the intermediate level, the materials guide teachers to "ask questions about the forecast that students can answer with a vocabulary word." Teachers point to different parts of the forecast, and students identify and describe the parts of the forecast using vocabulary words. The materials include questions for advanced/advanced high students that ask them to use a calendar and attempt to predict the weather for the next few days. Partners work together to repeat the predictions and add new ones.
- Materials provide an ELPS Correlation for each grade level. The document identifies the ELPS and the Teacher's Edition page numbers where the ELP is a focus.

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

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

three times for each grade and are not seen in every unit, falling short in consistency. Not all material provides adequate support to assist teachers in ensuring student content mastery.

- The ELPS Targeted Support of Topic 6, Experience 2, Evaluate, states, “If needed, post these words in the student’s native language and allow them to use their native language to express their understanding of each concept.” Topic 6 was the only lesson that referenced the native language.
- The student activity guide includes some materials translated into Spanish. The student guide includes all literacy and hands-on station cards in the student activity guide in English and Spanish.
- The Key Ideas Presentation included with each experience includes teacher support notes to guide student conversations about what students have learned. The downloaded version of the presentation of the key ideas contains the keywords to know in English and Spanish, along with the definitions to support students whose first language is Spanish. The guidance provided for the teacher is, "Preview vocabulary to help students as they build background knowledge and connect with key ideas." The words included in the Key Ideas Presentation for Experience 2, Push and Pull, and their definition in English and Spanish are push/*empujar*, pull/*jalar*, attract/*atraer*, and interact/*interactuar*.
- Teacher materials in Topic 6 Experience 2 Key Ideas Presentation: Needs of Plants list key vocabulary words and their definitions in English and Spanish. It states, “Words to Know: Preview vocabulary to help students as they build background knowledge and connect with key ideas. nutrients-materials that help living things grow, nutrients-*materiales que ayudan a los seres vivos a crecer*, survive-to live, *sobrevivir-vivir*. Academic Vocabulary: space- a place big enough for a plant to live, *espacio-área lo suficientemente grande para que una planta viva*."
- Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English. For example, in Topic 6, Experience 2, the ELPS Targeted Support includes an activity where the teacher writes these words on the board, survive, nutrients, plant, needs, water, air, space, and allows students to use their first language to express their understanding of each concept.
- Materials encourage students to use their first language during the Experiences as a means to linguistic, affective, cognitive, and academic development in English. For example, in Topic 5, Experience 1, the ELPS Targeted Support states, "Learning Strategies 1A, 1B, Listening 2E, Writing 5B Monitor students' understanding as they share information orally and in writing about the pictures they drew.” It also includes scaffolded instructions on addressing it for beginners, intermediate, advanced, and advanced high. For example, for beginners, the teacher asks students to point to their picture and identify where to find soil. The teacher allows students to use descriptions in their native language.
- The School-to-Home Letter in each topic prompts caregivers to explain science concepts in their own words or first language to support students.
  - Topic 6's letter states, "One of the best ways for students to check on their learning is to explain it to someone else. Ask your student about their class experiences, and ask them to explain the content that they are learning at school in their own words or, if relevant, in their first language."
  - The materials include a letter to send home with the institutional objectives for the topic to be covered. School-to-Home Letter prompts caregivers to explain science concepts in their own words or first language to support students' linguistic, affective, cognitive, and academic development and mastery of science concepts and vocabulary.
  - Materials provide School-to-Home Letter that includes cognates that would be helpful to Spanish speakers' academic development in English. For example, a series of slides to send

home about Properties have the following cognates and explanations to use by students; first language if it is Spanish. "material what an object is made of material *aquello de lo que está hecho un objeto* property how an object looks, feels, or sounds *propiedad manera de describer un objeto* Materials provide School-to-Home Letter that includes cognates that would be helpful to Spanish speakers' academic development in English.

Savvas Learning Texas Experience Science Grade K

Indicator 7.4

Materials guide 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 guide 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. Materials provide letters in English only.

Evidence includes but is not limited to:

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

- Materials include information to be shared with students and caregivers about the design of the program. The online resources include a tab for parents under the Getting Started with Texas Experience Science/Navigational Support/Realize Parent Support. This tab contains the following links: Realize Parent Letter, Realize Parent Guide, Realize Learner Tips for Parents, and Realize Parents Corner.
- The letter provides information about the topic and suggestions for how caregivers can help reinforce students' learning and development as well as keep students engaged in learning at home. The letter describes the topics in the program and how the materials use phenomena and the 5E model to support learning.
- The online resources include a one-page School-to-Home Letter to send home at the beginning of the course. The letter gives parents suggestions for supporting student learning in science, such as, "Look through recently completed assignments 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," and "Ask about homework assignments and be sure that your student has completed them." The letter lists the topics to be covered.
- Topic 2's letter informs parents the topic is *Magnets and Motion*, and students will engage in the experiences titled *Magnets* and *Push and Pull*. The letter lists the main TEKS covered in this topic and explains to parents how the topic begins with an Anchoring Phenomenon Video. The students will use information from the experiences to explain the question posed in the video, "How can we sort objects faster at a recycling plant?"
- The materials provide a one-page School-to-Home Communication Guide with suggestions for sharing the program design with students and parents. A suggestion provided is, "Use the

information provided in the "Engage in Dynamic Experiences," in the Teacher's Guide, as well as the Scope and Sequence, the Topic Planner, and the Experience-At-A-Glance to explain to students and caregivers the design of the program at the beginning of the year."

- Each topic includes a School-to-Home Letter describing the topic's experiences, the TEKS addressed, the main SEPs, and recurring themes and concepts. Topic 5 provides information about Rocks, Soil, and Water and how the students learn about the rocks and other natural resources. The letter for Topic 6 describes the three experiences: plant parts, needs of plants, and plant life cycles.
- The Getting Started with Texas Experience Science portion of the materials, under Navigational Support, Realize Parent Support page provides students and caregivers with Realize Learner Tips for Parents and Realize Parents Corner. The Learner Tips is a 1-page document outlining seven tips for parents for learning at home. The tips include: Taking a Break, Enjoying the Sunshine, Plan for Attention Span, Practice Mindfulness, Love over Lessons, and Keep up Communication. The materials describe the Parents' Corner as having "all the information you need to access and use Savvas Realize to support your student's academic growth." The materials provide helpful links on this page and How-To Videos for Students and Parents.

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

- The online resources include a one-page School-to-Home Letter to send home at the beginning of the course. The letter gives parents suggestions for supporting student learning in science, such as, "Look through recently completed assignments 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," and "Ask about homework assignments and be sure that your student has completed them." The letter suggests parents encourage computer literacy and help their students collect materials and information for school activities. The materials provide the letter in English.
- Topic 2 includes a sidebar that directs the teacher to create a chart for everyday uses of magnets. Students are encouraged to work with an adult to find ways to use magnets at home. The students write or draw their observations on the chart and share them with the class. The Topic 3 sidebar encourages students to record the names of light sources they see on a T-chart labeled home and school.
- Materials guide parents/caregivers, “Look through recently completed content and be sure to ask lots of questions. Encourage students to explain what they have learned in their own words or their first language. Ask about homework assignments and check that your student has completed them. Help your student collect materials and information for school activities. Advise your student to use computers, tablets, or other devices in school or at the library. If you have a home computer, help your student do research online.”
- Each topic includes a School-to-Home Letter that describes each topic and suggests that parents “check on their learning.” Topic 6’s letter states, “One of the best ways for students to check on their learning is to explain it to someone else. Ask your student about their class experiences, and ask them to explain the content that they are learning while at school in their own words or, if relevant, in their first language.”
- Topic 5 includes information about Rocks, Soil, and Water and how the students learn about the rocks and other natural resources. It informs the parent that one of the best ways for them to check their student's learning is to explain it to someone else. It recommends caregivers ask

students about their class experiences and describe the content they are learning at school in their own words or, if relevant, in their first language.

- The Topic 5 Home Connection activity is to Make a Rock Collection. Students collect rocks at home with the help of an adult and organize them by shape, color, texture, and size. Then the students draw them in their science journals and share them with the class.
- The materials include a School-to-Home Letter that provides information and suggestions to parents and caregivers to help students "gain proficiency in science." The letter offers tips such as: "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; Ask about homework assignments and check that your student has completed them; Help your student collect materials and information for school activities; Encourage computer literacy. Advise your student to use computers, tablets, or other devices in school or at the library. If you have a home computer, help your student learn to do research online." The letter concludes by listing the topics students will study in physical, earth, and life science this year.

Materials include information to guide teacher communications with caregivers.

- The materials include a one-page School-to-Home Communication Guide with suggested strategies to guide communication with caregivers and involve them in their student's learning. Suggested strategies include sending home letters listing the topics covered and general ways to support learners and letters at the beginning of each topic with an overview of what students should learn. The guide suggests the teacher use the Home, Community, and Texas Connections sidebars to engage caregivers and the community to help students connect to the content. For example, Materials suggest teachers "Invite caregivers to stay involved in their student's learning. Make sure that they know you welcome their input and contributions, and that they know how to reach you."
- Materials guide teachers in using the Grade and Topic School-to-Home letters and the topic Home Connections, Take it Local, Collaborate with the Community features in the Teacher's Guide.
- Materials include a one-page School-to-Home Communication Guide that provides a guide for teachers' communication with caregivers. It offers six strategies for teachers to use. One is to share the Grade School-to-Home Letter provided for every topic, including the importance of phenomenon-based 5E science instruction. Another one is to invite caregivers to stay involved in their student's learning by providing opportunities for them to talk about what they learn at school.
- The materials provide several letters explaining the program and giving caregivers advice and instructions. One letter in the Realize Parent Support section focuses on support for the online platform. Another letter is located in the Additional Program Resources and provides parents with the topics their student will study and some tips on how to assist and support student learning.

Savvas Learning Texas Experience Science Grade K

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 include a TEKS-aligned scope and sequence outlining the order in which knowledge and skills are taught 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 teachers with tools to revisit process skills, not content knowledge. Knowledge is introduced and taught; however, no evidence of spiraling was found.

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 guidance document *Teacher Supports* contains a K-5 TEKS-aligned scope and sequence outlining the order in which knowledge and skills are taught and built in the course materials. The scope and sequence provides an overview of the knowledge and skills taught within and across grade levels in the program. For example, the Teacher's Guide includes a TEKS-aligned scope and sequence that details the kindergarten units and illustrates vertical alignment from kindergarten to grade 5.
- Materials include a one-page TEKS-aligned scope and sequence. The table outlines the order in which TEKS are taught. For example, the materials provide a programmatic scope and sequence or instructional map for K-2, showing the vertical alignment of the TEKS taught in the program throughout the school year.
- In grade K, materials include a cohesive scope and sequence that describes how scientific knowledge and skills are addressed over the course of the entire year. For example, at the beginning of each topic, materials list the TEKS and objectives that are covered in the topic. Each topic includes an overview that includes a TEKS progression. For example, Topic 7, *Animals*, asks, "How does this topic connect to what students learned earlier?" and lists four prekindergarten standards. It then states, "Throughout this topic, students connect to big ideas." It lists K.12B and K.13B, as well as five vocabulary words. Then it looks ahead to three first-grade standards.

- Grade K materials also include a Course Planner and Pacing Guide outlining topics from the one-page, TEKS-aligned scope and sequence table. The Course Planner and Pacing Guide include the sequence and pacing of the topics.

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

- Materials contain a Scientific and Engineering Practices (SEPs) and Themes Preview, providing clear teacher guidance and information to help students make connections between core concepts, SEPs, and recurring themes and concepts. The preview provides teacher directions on using the SEPs & Recurring Themes and Concepts Presentation to facilitate student-made connections. For example, the grade K guide details how to use slides 2-6 from the presentation to help students explore the processes of investigating and designing solutions. The presentation is divided into five key ideas corresponding to Texas Essential Knowledge and Skills for Science 1–5. These key ideas include Investigate or Design, Use Models, Share Ideas, Scientists' Help, and Themes and Concepts. It also includes activities that can be used to introduce students to SEPs as well as Recurring Themes and Concepts in science.
- For example, in kindergarten, teachers assign “Design a Ramp” to students. This activity asks students to design a ramp using the key ideas of asking questions, investigating, experimenting, and improving it. Kindergarten teachers also assign “What are Seasons?” to students. In this activity, students learn about the seasons by predicting and discussing them.
- Materials include sidebars to guide the teachers in facilitating student-made connections. In Topic 2, Experience, “the sidebar guides the teacher to facilitate a connection within the recurring theme and concept of cause and effect with a question about what caused the objects in the bag to move in a station activity.”
- Each topic overview includes a section for recurring themes and concepts TEKS. For example, Topic 4, *Patterns in the Sky,* names K.5A to identify and use patterns to describe phenomena or design solutions. The topic overview includes a section for scientific and engineering TEKS. For example, in Topic 4, *Patterns in the Sky*, it names K.1D, K.1F, and K.1G

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

- Materials provide a TEKS correlation that details the locations throughout the course where teachers can find review and practice previously introduced knowledge and skills. For example, K.1G is utilized in several topics as students develop and use models in their scientific investigations. The materials provide a topic overview at the beginning of each topic that provides the scientific and engineering TEKS present in the lessons. For example, Topic 3 lists several SEPs TEKS along with recurring themes and concepts TEKS present in the lessons on this topic.
- For every topic in the Teacher's Guide, an explicit explanation of previously learned content is reviewed and spiraled into the current topic. This explanation is in the Preview of the Topic section of the topic overview in the Teacher's Guide. For example, the grade K Teacher's Guide: Topic 6, *Plants,* Overview: Preview the Topic Section supports content from Topic 5, *Rocks, Soil, and Water*. Students will use what they learned in Topic 5 about the practical uses of soil and water (TEKS K.11A) with what they learned about the needs of plants in Topic 6. Similar information will be in every topic overview in the Teacher's Guide. In the Topic Wrap-up for

every topic in the Teacher's Guide, we have added a Spiraling Content section which will prompt teachers to use the topic Spiraling Activity. For example, in grade K, Topic 6 Wrap-up will include the Spiraling Content Section.

- Each topic provides opportunities for students to show mastery. For example, the grade K Topic Wrap-up included a test and a short constructed response quiz for students. Each topic includes two experiences providing opportunities to support the review and practice through an evaluation tool.
- Materials include station activities to review content that aligns with the topic. For example, Topic 1, *Objects*, includes the "What is it?" station activity to review the properties of objects. However, it is not a spiral review of skills.

Savvas Learning Texas Experience Science Grade K

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 the indicator. Materials include classroom implementation support for teachers and administrators.

Materials provide teacher guidance and recommendations for the 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.

- Materials include Scientific and Engineering Practices (SEPs) and Themes previewed in the Teacher's Guide, providing teachers guidance on how to utilize the materials to support TEKS 1-5 which are integrated and ongoing throughout the remaining units. The grade K preview also provides information on using slides and implementing activities.
- Materials include a digital user guide to support teachers. It allows teachers to understand how to use all the digital components, including the teacher home page, program dashboard, My Library, Digital books, interactive PDFs, assignments, and scoring, in addition to the student home page. The digital user guide includes QR codes with links to videos; one example guides teachers in navigating the digital resource library. The digital guide is clearly labeled with information on the features of each digital resource. Teachers can access the digital user guide, which includes QR codes with links to videos to assist the teacher in understanding how to navigate digital resources. For example, one QR code is linked to a video detailing how to navigate the teacher home page, which is the starting point for accessing all other features.

Savvas Learning Texas Experience Science Grade K

- The Teacher's Guide includes several supports to assist the teacher in understanding how to use the materials. The Teacher's Guide provides information at the beginning of each unit to assist teachers in understanding which components of the materials to use within the unit and how to use them. For example, the materials have a *Getting Started with Texas Experience Science K* guide to support teachers. Embedded sidebars seen throughout the Teacher's Guide assist the teacher with items, such as images of which station card to use, addressing misconceptions, vocabulary support, and mastering SEPs.
- Each topic includes a planner that provides teacher background, common misconceptions, TEKS information, as well as home and literacy connections. It also lists the necessary components for the topic and suggested time periods. For example, in Topic 1, *Objects*, there are two experiences. In Experience 1, *Properties of Objects*, the Engage section is an Everyday Phenomenon Photo. The Explore section is a hands-on station and literacy station. The Explain/Elaborate includes a key ideas presentation, a key ideas video, and a STEAM activity. The Evaluate component contains an exit ticket. Materials include standards correlations, including cross-content standards, that explain the standards within the context of the grade level.
- The Teacher's Guide includes TEKS and English Language Proficiency Standards (ELPS) correlations in the planning resources detailing where they can be found. Each unit also includes a topic overview with a TEKS progression explaining the standards being taught within the unit, as well as how it was covered in prekindergarten and how it will be covered in first grade. For example, cross-content opportunities are seen in a section titled "Math and English Language Arts and Reading TEKS" to illustrate standard correlations, including cross-content standards. For example, Topic 4, *Patterns in the Sky*, lists the math standard K.8C and K.6B. It also lists the ELAR standards K.6B, K.3B, K.5C, K.5E, K.6E, K.6F.
- Materials provide cross-curricular opportunities. For example, a *Connect to Literacy* section in the sidebar lists recommended topic readers and trade books. Topic readers have activities that accompany them. For example, in Topic 7, *Animals*, the three topic readers are: *At the Pond* by Theresa McNamara, *Living Things*, by Deanna Yuen, and *Animals and Plants* by Ann Lee Alley.

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

- Teachers are provided with a comprehensive list of all equipment and supplies needed to support instructional activities. A Master Materials List for grades K–5 can be accessed in the digital materials under the program resources. The materials list downloads as an Excel spreadsheet. The spreadsheet details the topic and activity in which the material is used. The detailed spreadsheet notes whether the material is included in the Grade K Classroom Materials Kit or school supplied, the quantity needed, a description of the material, and whether the material is consumable or non-consumable. An example is seen in Topic 6, Experience 3, the hands-on station "How do plants change?" The file shows that the Classroom Materials Kit and the Consumable Refill kit supply the plant seedlings, cups, and soil. A note shows teachers the Safety Kit K-5 supplies safety goggles and gloves and an adult plant for student and teacher use.
- Materials provide Experience cards that include a *What You Need* section that lists the materials for that activity. In Topic 6, *Plants*, Experience 2, "What does my plant need?," lists the materials: potted plants, sunlight, a spray bottle with water, and petroleum jelly.
- Grade K materials contain a Texas Experience Science Master List located in the Additional Program Resources. This includes a list of supplies needed to support students, teachers, and administrators during an investigation. For example, the Topic 2 activity "What will a magnet

pick up?" lists the materials needed: bar magnet, eraser, ruler paper lips, wood blocks, bolts, and nuts.

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

- In accordance with Texas Education Agency Science Safety Standards, the materials include a Hands-On Activity Safety Guide to support teachers and students. Teachers reference the sections included: Laboratory Safety Rules, a safety contract, and sections on preventative, as well as emergency safety equipment. Sections on safe practices and appropriate use of resources are included for teachers to access.
- Teachers can reference station cards containing a warning symbol along with a description of a warning associated with that station.
- Teachers can access the student book which includes 47 lab safety rules, in the lab, in the classroom, and in the field. Students are suggested to sign a student-friendly contract that includes a picture of a caution sign when referencing possibly dangerous materials used during the lab.
- For example, the Experience 2 lab station card under the *Light and Shadows* topic includes a warning to never shine a flashlight in someone's eyes. Another experience card for the unit on *Magnets and Motion* warns students to never place a magnet near electronic devices. Experience cards include safety reminders when necessary. In Topic 6, *Plants*, Experience 2, "What does my plant need?," it states, "Wash your hands after you touch plants or soil."

Savvas Learning Texas Experience Science Grade K

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 developmental progression. Materials designated for the course are flexible and can be completed within 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.

- Materials provide suggestions for pacing. For example, the Teacher's Guide includes a year-long Course Planner and Pacing Guide and provides the teacher two options for pacing under each topic. A "Fast Track" method designated by a checkmark notes activities when time is limited. Teachers have access to activities to personalize student learning (noted by a plus sign) when their schedule allows. The materials include support for specific scheduling considerations, with guidance for covering required science content for the grade level within a variety of schedules. The Teacher's Guide provides a Course Planner and Pacing Guide which provides scheduling considerations for adjusting required time for experiences and activities. Teachers can reference the Pacing Guide as it further breaks down how many days are needed for each component (launch the topic, participate in the lab experiences, and wrap up each unit). Each topic gives you the flexibility to focus on core assets that cover the TEKS by taking the fast track or pulling in additional resources to create a more robust experience when you have more time.
- Each topic has a *Topic Planner* where the suggested number of days is noted, followed by a lesson plan pacing summary. Topic 4, *Patterns in the Sky*, Experiences 1, 2, and 3 last 5 days each or 150 minutes of instructional time.
- Grade K materials provide planner lists detailing the amount of time needed for each component of the 5E lesson plan including the optional personalized student centered options. For example, Topic 3 has two 5E lesson plans that are each listed as having a minimum of 5 days needed to complete the lessons, including a breakdown of components and how long each one should take, in addition to the personalized student activities. Each topic includes a Topic Planner that lists all activities and recommended time for each activity. In Topic 1, *Objects*, Experience 1, the total suggested time is five days or 150 minutes. This is broken down into:

Everyday Phenomenon Photo (10 min), hands-on station (30 min), literacy station (30 min), key ideas presentation (20 min), key ideas video (15 min), STEAM activity (30 min), and exit ticket (15 min). The materials include guidance and recommendations on required time for lessons and activities with options for a variety of scheduling considerations. For example, the Topic Planner for Topic 3 recommends that Experience 1 should be completed in 5 days (150 min), and breaks it down in the following manner: Engage (10 min), Explore (60 min), Explain/Elaborate (65 min) and Evaluate (15 min).

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

- For example, the scope and sequence supports strategic implementation without disrupting the sequence of content. Unit materials include a planner that leads the teacher through the order of a 5E lesson progression. Materials provide guidance on flexible options to modify the lessons to implement them in a 3-5 day lesson cycle without disrupting the sequence of content, allowing it to follow a modified 5E progression. Teachers are directed to the general sequence of instruction that follows the same specific order: engage, explore, explain/elaborate, and evaluate.
- In Topic 1, *Objects*, the properties of objects are taught prior to classifying objects. *Plants and Animals* are sequenced together, assisting students with making connections about the needs of living things. Materials clearly delineate the sequential order of units to ensure students learn about precursor concepts first. Students first learn about properties in Topic 1 before observing properties in subsequent units, as noted in the Course Planner and Pacing Guide.
- Materials in the Topic Overview support teachers in identifying the developmental progression of TEKS to ensure that students are supported with instructions that are organized to optimize their learning. In Topic 6, Experience 1, the Engage is an Everyday Phenomenon Photo, the Explore section contains stations, the Explain/Elaborate section includes a key ideas presentation, a key ideas video, and a STEAM activity, and the Evaluate section is an exit ticket.

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

- The materials include seven topics with activities for a full year of instruction. The scope and sequence indicates a majority of the lessons support the development of the TEKS, SEPs, and recurring themes and ideas among all areas within the grade level.
- Materials suggest flexible pacing, including teaching in as little as 53 days to as many as 146 school days. The materials provide enough flexibility so the course can be completed in one school year and provide enough support to meet the flexibility requirements for the teacher.
- Materials include a Topic Overview and a Planner for each topic that provides a pacing decision-making flowchart. The materials provide guidance on flexible pacing teaching options so the teacher can choose to follow a five-, four-, or three-day track. The five-day track is considered full instruction with a 5E lesson format with a separate day for each of the following components: Engage, Explore, Explain, Elaborate, and Evaluate. A fast-track activity is suggested to fast-track your teaching, and "Got More Time?" activities can be used to personalize student learning. The four-day track combines the Engage and Explore components on day 1. A fast-track option removes the elaborate portion so that the lessons can be completed in a three-day streamlined option.

Savvas Learning Texas Experience Science Grade K

Indicator 9.1

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. The visual design of the materials is clear and easy to understand. The Teacher's Guide and digital platform are designed with clear, designated places for important information. The Teacher's Guide is designed in a way that teachers can locate important information easily for planning and implementation. The guide includes titles and headings that are prominent and clear, along with photos of included materials for the lesson. The digital platform may be accessed by topic, standard, or by category.
- Student materials include the following: titles and headings are prominent and clear, sections are marked with subheadings, pages in the student book have "cut lines" so students can add work pages to a journal, and the content is organized in a logical progression.
- The Literacy Station Cards in every Experience include optimal, grade-appropriate font size, text, and colors for ease of reading for all students. Station cards can be utilized by students online or in a printed version. All station cards have a prominent, clear title, a photo of the activity in hands-on stations or related to the text for literacy stations, and a box labeled, "What You Need," with black-line illustrations and labels. The left edge of each station card is color-coded green for literacy stations and purple for hands-on stations. The station directions on the lower half of each card include large numerals indicating each of the 2-3 steps for the station and text at a beginning reader level in a large, easy-to-read font.
- The literacy station cards are organized with a clear title on the top and a picture that supports the title. To the right of the picture is a "What You Need" box that provides pictures and words describing what the students need to complete the station. The bottom half of the card is

labeled with a large 1 Read, 2 Describe, and 3 Identify. The amount of white space is optimal and does not distract from student learning.

- The literacy station Read About It texts and Topic readers available in print and online have an overall design that does not distract from learning. The texts feature vocabulary-based titles in a large font with a photo correlated to the topic. Pages within the readers feature large photos and one or two simple sentences. The font size, spacing, and white space around the text make the content easy to read. Sidebars and labels are used sparingly, are simple, and are in an easy-to-read large font.
- The Topic 1, *Objects*, student Read About It Text: *Properties of Objects* features ample white space and uses a large font for vocabulary-based titles and subheadings. The text includes short sentences and ample white space between sentences. Vocabulary words, such as *observe* and *property*, are highlighted in yellow and appear within the sentence along with their definitions.
- Topic 5, *Rocks, Soil, and Water*, Literacy Card for Experience 2, *Use of Earth Materials*, "How do we use natural resources?" uses large colored types for the headings and the steps to help students follow the steps to do the activity. Instructions are in single short sentences, use pictures, and include ample white space between the lines to help struggling readers. Step 1, Read Use of Earth Materials; Step 2, Describe and Draw how a natural resource is used; Step 3, Share How do you use natural resources?
- Topic 5, *Rock, Soil, and Water,* includes the Read About It Text, *Rocks*, which features an appropriate amount of white space and uses titles and subheadings. The text includes short sentences and ample white space between sentences. The vocabulary word rock is highlighted in yellow when used in a sentence.
- In Topic 6, *Plants*, Experience 2, *Needs of Plants*, the Hands-On Station includes the title "What does my plant need in large, bolded font at the top?" The required materials are in a box labeled "What You Need" and include illustrations of each item. Instructions are given using single short sentences, such as, "Look at each plant," with ample white space between the lines of type.

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

- The materials include age-appropriate pictures and graphics that support learning and engagement. Hands-on station cards include a photo of children performing the activity and a box beside it labeled, "What You Need," with black-line, labeled drawings of all materials needed. Literacy station cards have the same design, but the photo is an age-appropriate photo related to the topic. A hands-on station card in Topic 2, *Magnets and Motion*, Experience 1, *Magnets*, features a photo of a child using a magnet as they try to pick up the items featured in the box beside the photo. The literacy station card in the same experience includes a photo of a teacher and students exploring with magnets in a classroom. The box beside the photo contains a drawing of a book labeled, "Read About It" and a paper labeled, "Literacy Station Activity."
- The Key Ideas PowerPoint presentations use age-appropriate photos and graphics that support student learning and engagement. Topic 3, *Light and Shadows*, Experience 2, *Shadows*, include a PowerPoint featuring a photo of a child's hands making a shadow puppet on the first slide. Additional slides show photos of shadows made as sunlight shines through trees and a lamp shines on a bowl of apples. The final slide is an exit ticket showing simple color drawings of a window, a teddy bear, and blocks for students to use in a discussion about what happens when light shines on them.

- The Station Cards feature photos that illustrate the content they read about and saw pictured earlier in the lesson as well as diverse representations of students engaged in the hands-on activity they will be doing in class. Topic 1, *Objects*, Experience 2, Classify Objects Station card: “Which objects go together?” shows a photo of a boy and a girl completing the sorting activity. The card includes simple black-and-white line art illustrations of the materials needed to do the activity, which are buttons, the Hands-On Station Activity, and crayons.
- In Topic 6, *Plants*, student Read About It Text: *Plant Parts* features age-appropriate photos and graphics that support student learning and engagement without being visually distracting. The reader includes a photo of a tomato plant with labels for the roots, stem, and leaves. The tomato photo includes the caption, ”Tomatoes grow on this plant.” The text includes a full-color, realistic illustration of Ynes Mexia.
- Materials embed age-appropriate pictures and graphics that support students learning and engagement without being visually distracting. For example, the Read About It: *Rocks* in Topic 5, *Rocks, Soil, and Water*, includes seven different photos to represent different rocks. It also includes simple graphics to help students see important features throughout their reading.
- The Hands-on Station Card on each Experience includes age-appropriate pictures and graphics that support students learning. Topic 5, *Rocks, Soil, and Water*, Experience 1, *Rocks*, Hands-on Station Card features a photo of a boy using a handheld magnifying glass when observing a rock. The visual reinforces what is being taught. Materials needed for the activity are represented by simple art illustrations. Graphics and color are used to help students and provide clear navigation and tracking through the activity.
- The materials include Read About It readers with clear and authentic images and graphics to support the new vocabulary students are learning. Vocabulary words within the text are highlighted yellow and serve as captions of the pictures. For example, in the Needs of Animals reader, the word shelter is highlighted in the text, "Shelter is a safe place to live." Also on the page is a picture of coyote cubs emerging from a rock cave with the word *shelter* written below the cave of cubs.
- The Key Ideas Presentation contains slides with the important concepts within a topic. Each slide has a corresponding photo, graph, or picture that supports the content of the slide. For example, in the Animal Parts Key Idea Presentation, the Explain slide asks, "How do eyes and ears help a dog?" The slide presents two sentence stems, "Eyes help a dog…" and "Ears help a dog…" To the right of the sentence stems, there is a picture of a real Boston Terrier with his eyes wide open and ears standing up straight.
- When creating classes on the online platform, the teacher can choose between the Default Theme and the Early Learning Theme. Both are appropriate for students and provide a clear and useful platform to find content and tools. The Early Learning Theme is a simpler platform that is age appropriate for K-2 learners. Instead of having three tabs at the top to Browse, toggle between Classes, and see Grades, the Early Learning Platform has two color-coded tabs, one for My Work and one to Explore. The Assignments for the Early Learning Theme are listed as the main listings on the page, with a large Get Started button for each assignment. To the left of the screen, there are tabs for Assignment, eTexts, and Tools. Each of these tabs is labeled with an accompanying symbol; for example, the eTexts has a book icon to identify it.

Materials include digital components that are free of technical errors.

- The materials include digital components that are free of spelling, grammar, and punctuation errors. An example is a question from the online Topic 2, *Magnets and Motion*, test that reads, "You drop a metal paperclip on the floor. It goes under a desk. Can you use a magnet to help

find it? A. Yes B. No." The question is free of spelling and grammar errors. The question is graded correctly when submitted online.

- The student activity pages are free of spelling, grammar, and punctuation errors. The pages may be assigned and utilized online or printed. The pages are free of inaccurate content materials or information. A sample page from Topic 3, *Light and Shadows*, Experience 1, *Light*, titled, "How does light help you see? Under the title is the word *identify*, in bold print followed by "Color the objects that give off light." Illustrations below the text show a teddy bear with a lamp shining on it and with sunlight streaming through the window.
- For example, in Topic 4, *Patterns in the Sky*, Wrap-Up, all documents and links are free from spelling and grammar errors. A sample question from the multiple-choice topic test is, “What makes the sky bright during the day? A. The sun B. The moon.” All words are spelled correctly, and the question ends with a question mark. The Anchoring Phenomenon Video includes the text, “How do you know what to wear when you look outside?” across the top of the screen throughout the video. All words are spelled correctly, and correct punctuation is used.
- Topic 5, *Rocks, Soil, and Water*, Read About It: *Rocks* is free of spelling errors and includes no grammar concerns. Materials use simple sentences starting with a capital letter and ending with a period; for example, Some rocks are smooth.
- In Topic 7, *Animals*, Experience 2, *Animal Parts*, the Literacy Station Activity, "How do animals use their parts?" provide directions and questions to students that are error-free and accurate. The activity sheet is numbered according to the steps students are to take, and the main verb in the instructions is bolded. For example, the first step is "Read Animal Parts." "Read" is bolded. The second step is "Describe Write a sentence about the frog. Use the word grasp." "Describe" is bolded as is the vocabulary word grasp. The students are also given a black-and-white drawing of a tree frog perching on a thin limb. The picture is accurate and clearly shows the frog using his front legs and back legs to grasp the limb.
- The materials are free of inaccurate information and wrong answers. In Topic 1, *Objects*, Experience 2, *Classify Objects*, Key Ideas Presentation: Classify Objects, the content is accurate, and the answer key for the question, “How are these items sorted?” is correct. The online Topic 6 *Plants* Test is free of inaccurate information and wrong answers. When selecting correct answer choices, such as “Plants need water to grow,” the answers are counted correctly.
- The Answer Keys to test include no wrong information. For example, in Topic 5, *Rocks, Soil, and Water*, the Topic test includes the correct answers to all questions. Question one is: “Rock is a hard metal from Earth. It can be used to____”. The answer is, “A Build Houses, and it is accurate and correct.”
- The answers to the Topic Test are correct and correctly computed within the online system. When selecting correct answer choices on the multiple-choice test in Topic 4, *Patterns in the Sky*, the answers are counted correctly. Question 3 includes 6 graphics labeled A to F. The graphic E includes a moon, stars, and a dark background. The question states, “Each picture shows the sky at a different time. What time of day is Picture E?” The question is marked correct if the student chooses answer B. Night and marked incorrect if another answer is chosen.

Savvas Learning Texas Experience Science Grade K

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 include Key Ideas PowerPoint presentations designed to be projected on a screen for each experience. Topic 2, Magnets and Motion, Experience 1, Magnets, includes a 10-slide presentation designed to review the key ideas in a group discussion. The presentation includes slides that prompt students to discuss their observations from their explorations and slides that prompt them to apply their learning. Slides review key vocabulary and an exit ticket to assess learning.
- The online platform includes Key Ideas videos that can be utilized in a whole group setting or assigned to individual students, small groups, or the class to be viewed online. While viewing the video, the students can change the volume, turn closed captioning on or off, control the speed of the video, and change the video to full screen. Topic 2, Magnets and Motion, Experience 1, Magnets, includes a video describing how magnets stick to some metal objects and include an adult testing several objects on a playground with a magnet to see if they are magnetic.
- Digital technology and tools enhance student learning through the features of online videos. The video player allows students to control when to play or pause the video, control the volume, turn on closed captions, increase the size to full screen, and control the speed of the video.
- The Hip Hop Science Song: “Matter” in Topic 1, Objects, enhances student learning and engagement. The song reviews content and vocabulary through a song with lyrics embedded in the video.

- Materials feature, videos, and presentations that teachers use during the 5E lessons where students interact by participating in class discussion. Topic tests can also be assigned to take online.
- In Topic 4, Patterns in the Sky Wrap-Up, the materials provide a Hip Hop Science Song: “Weather.” This digital tool is a song video that "helps students reinforce their understanding of weather." It can be assigned to students individually or shown to a whole class. The song is a rap and engages students in thinking about the weather and the decisions that must be made because of the weather. The first stanza of the song is: "What’s the weather? What’s the forecast today? Is it sunny? Is it clear? Can I go out and play? Or is it rainy? Grab my boots and umbrella. And if it’s really cold, I’ll be sure to grab a sweater."
- In Topic 4: Patterns in the Sky, Experience 1, The Sky, the materials provide a Key Ideas Presentation that is "designed for front-of-classroom instruction to explain and review the content of The Sky" and Key Ideas Video to "support and enhance student understanding of the key ideas" of the experience.
- Features included are videos and online assessments. Each topic includes an option for the teacher to administer the topic test online or on paper. Topic 5, *Rocks, Soil, and Water,* includes an Anchoring Phenomenon Video: “Where do you think we get the materials to make these objects?” This video introduces the anchoring phenomenon, and teachers use it to discuss topics with the class.

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 Topic 1, Objects, Experience 2, Classify Objects Key Ideas Presentation includes an interactive slide show about the topic content. The teacher presents the slides with embedded questioning that supports scientific thinking with the topic content. Questions include, “How are your groups alike or different?” and “How can you classify objects?”
- The materials provide topic readers covering grade-level content that can be assigned to students in the online platform to be viewed digitally. Topic 3, Light and Shadows, includes three topic readers that can be printed or assigned online for student access. The texts are Light Around Us, Things That Glow, and What Are Shadows? The readers contain engaging photos that correlate with the print. When accessed online, the reader can read the text by scrolling down.
- The materials provide a Science and Engineering Practices (SEPs) and Themes Preview PowerPoint presentation designed to be projected on a screen to explain and review the scientific and engineering practices and themes of the Texas Essential Knowledge and Skills (TEKS). The presentation covers the key ideas Investigate or Design, Analyze Data and Use Models, Share Ideas, Scientists' Help, and Themes and Concepts. The final slide includes a turn and talk prompt, "How will you be a scientist or an engineer today?" as an exit ticket.
- At the beginning of each topic, there is an Anchoring Phenomenon Video that introduces students to the question that will recur throughout the topic and be revisited at the end of the topic. For example, Topic 4, Patterns in the Sky, begins with the Anchoring Phenomenon Video: How do you know what to wear? The video introduces and engages students in the idea of needing to know more about the weather and seasons so you can make decisions such as what to wear when you go outside.
- In Topic 4: Patterns in the Sky, Experience 1, The Sky, the materials provide a Key Ideas Presentation that is "designed for front-of-classroom instruction to explain and review the

content of The Sky" and Key Ideas Video to "support and enhance student understanding of the key ideas" of the experience.
- Topic 7 Animals includes a video and song on Animals. The video includes animation and lyrics for students to follow.

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

- The online materials provide the opportunity for teachers to create discussion prompts to assign to students to respond to on the online platform. Students and teachers can link files up to 10 MB in their comments. Supported file types include .doc, .docx, .ppt, .pptx, .jpg, .png, .mp3, .mp4, or .pdf. "Teachers can create, monitor, moderate, and reply to comments from students in these discussions." There is no speech-to-text, an option to make a recorded response or to respond by a drawing to make this accessible for young students that are typically in the beginning stages of reading and writing at this age.
- The teacher can assign PDF activities included with the materials or a teacher-created PDF uploaded to My Library. The students receive their copy which they can interact with utilizing the PDF toolbar features. The student can "add text, highlights, notes, and use various formatting options and other tools to complete the assignment." The teacher can view the assignment while it is in progress or after it is completed and use the toolbar to, "add text, highlights, notes, and use various formatting options to provide feedback."
- The materials provide a discussion forum for teachers to post class discussion topics. Students can collaborate via an online discussion.
- Topic 1, Objects, Experience 2, Classify Objects, contains a Key Ideas Video that provides an opportunity for students and teachers to collaborate. Students watch a video about how and why we classify objects in everyday life. The Teacher's Guide directs the teacher to facilitate a classroom discussion about the questions and comments for the video.
- Topic 5, Rocks, Soil, and Water, includes an Anchoring Phenomenon Video, "Where do you think we get the materials to make these objects?" that students watch at the beginning of the topic. Throughout the topic, students gain knowledge that helps them to describe and classify rocks by observable properties and to recognize how natural resources, such as soil, rocks, and water, are used every day. The teacher leads a class discussion by asking, “What are these objects made of?” and accepts all student's ideas.
- Materials include Key Ideas Presentations which include technology that provides opportunities for teachers and students to collaborate. Teachers use them after completing the stations in the Explore phase of the experiences, and they have embedded classroom activities and notes for teachers to use. Topic 7, Animals, Experience 1, Animal Parts, includes a Key Idea Presentation that includes three statements that teachers use to check for student sense-making and understanding of the concept taught. Students can interact with the presentation by participating in a class discussion, and if the statements are true or false on the PowerPoint, students choose a thumbs-up/down graphic. "The ears of all animals are the same. An owl can see in the dark. Ears help a dog hear."
- Within the Getting Started teacher tools, there is a guidance document named Support for Collaborative Tools in Realize. Within this document, there is a description of four collaboration tools within the materials, including Collaboration in Assignments, Discussion Prompts, PDF Toolkit, and Playlists. In the Collaborating in Assignments, the "Teachers can preview assignments in progress and provide comments to help students with their work. Teachers can

do the same after grading an assignment and reassign the work so that students can improve their grade." Students can see and respond to their teacher's comments. Discussions between students are supported by online materials. "Discussions on the Savvas Realize Learning Management Systems (LMS) enables the teacher to facilitate class and group discussions on important academic and social topics." Teachers are provided guidance on how to set up these collaborative discussions. The final collaboration tool addressed in this guide is the PDF Toolkit. "When a teacher assigns a PDF activity from a Savvas Realize program, (or a PDF the teacher has uploaded to My Library) to a class, each student receives an individual copy of the PDF that enables the student to interact with the assignment. Using the PDF toolbar features, the student can add text, highlights, notes, and use various formatting options and other tools to complete the assignment." Teachers and students can interact and collaborate on the PDF by adding text, highlights, and notes. The last tool mentioned is playlists. Teachers are guided so that they can create a playlist with the program content as well as their content. "Once teachers have a playlist, they can assign content items from a playlist to students, share playlists that contain content with other teachers within their district, and collaborate with students and/or caregivers to create playlists as tasks or a tool to support co-teaching."

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

- The materials are accessible and compatible with Chromebooks, iPads, PCs, and Mac computers. The Realize and Realize Reader operating systems requirements include Windows 10, Chrome OS 90, Mac OS 10.15, iPadOS 14.5.1, iPad OS 13.7, and Android 10. "The Realize and Realize Reader system requirements include the latest versions of Google™ Chrome™, Microsoft Edge®, Mozilla® Firefox®, and Apple® Safari®."
- The materials are accessible through a variety of Learning Management Systems (LMS). The materials can be accessed through systems such as Classlink, Oneroster, Aeries, Infinite Campus, Canvas, Google Classroom, Onedrive, PowerSchool, and Schoology. Teachers can assign an assignment in Seesaw, Microsoft Teams, or any other format they can post a link. The link will recognize the student and send them to the digital platform to sign in and complete the assignment.
- The digital learning platform is accessible via desktop and mobile devices through the publisher's website and individual login. The interface is the same on desktop and mobile.
- The System Requirements page of the online platform indicates that the program is compatible with Windows, Chrome, and Mac operating systems.
- In the Realize Integrations Overview, the materials indicate that the online platform will integrate with the learning management systems of Canvas, Google Classroom, and Schoology.
- The online platform supports "deep linking" assignments by teachers. "This means teachers can assign a Realize assignment in their platform of choice (Seesaw, Microsoft Teams, and anywhere else you can post a link) and when accessed by the students, that link will recognize them and send them to log in and complete the assignment in Realize."

Savvas Learning Texas Experience Science Grade K

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.	No
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

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.

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

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.

- Lexile levels in the assessments for grade K are not developmentally appropriate.
- The planner in the Teacher's Guide provides the amount of time students access digital materials via screens in each topic. Most materials are available to be printed, reducing the amount of screen time. The components that are accessed digitally only are 20 minutes or less in length each. Topic 2, Magnets and Motion, includes two Key Ideas PowerPoint Presentations that are projected on a screen and are 20 minutes each. The video clips in Topic 2, Magnets and Motion, include the Anchoring Phenomenon Video “How do we sort these objects faster?” which is 33 seconds long, the video clip “Magnets” which is 3.5 minutes long, and the video clip “Push and Pull” is 1.5 minutes long. The topic test, which is also available in a printed version, is 5 minutes long.
- The video clips provided in the materials are developmentally appropriate for the grade level. The videos are an appropriate length and include bold, easy-to-read text, with simple explanations. Topic 3 includes an Anchoring Phenomenon video to introduce the topic, Light and Shadows. The clip shows paper lanterns floating on a lake at night. The text, "If it is dark outside, how can we see these lanterns?" is in bold print on a yellow bar across the video as the topic is presented.
- The Hip Hop Science Songs provided in the materials are developmentally appropriate for the grade level. The videos are an appropriate length of time and include the lyrics as part of the animation. The Topic 1, Objects, song is titled “Matter.” Lyrics include, "Everything around you is matter! If it takes up space then it’s matter! Has mass and weight? Then it’s matter! Matter! Matter! Matter! Matter!”

- Digital technology and online components are aligned with the scope and approach to science knowledge and skills progression. The online component provides the standards listed on the top right-hand side of the online site. It indicated the standard number for the Topic or Experience covered according to the scope and sequence with a link to its definition. Topic 5, Rocks, Soil, and Water, Experience 1, Rocks, covers kindergarten standards.
- The online components are developmentally appropriate and align with the science knowledge and skills progression. The Read About It text, The Sky, for Topic 4 presents text at an appropriate level for kindergarten. Although some of the words may be difficult, they can be decoded. The text is repetitive and is supported by visuals. For example, the first page is titled, Day Sky. "It is light outside. You can see the sun. You can see clouds. You might even see the moon!"
- For example, in Topic 4, Patterns in the Sky Wrap-Up, the materials provide a Hip Hop Science Song: “Weather.” This digital tool is a song video that can be assigned to students individually or shown to a whole class. The song is a rap and engages students in thinking about the weather and the decisions that need to be made because of the weather. The first stanza of the song is: "What’s the weather? What’s the forecast today? Is it sunny? Is it clear? Can I go out and play? Or is it rainy? Grab my boots and umbrella. And if it’s really cold, I’ll be sure to grab a sweater."

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

- The materials provide a user guide for the digital platform. The user guide includes topics such as navigating the digital platform, assigning and assessing content, helpful class tools, managing class assignments, scoring student work, and student experience. The user guide also includes the topics available integrations and help and support. The user guide is designed for the Learning Management System utilized for several programs and is not specific to this set of materials.
- The Realize user guide includes QR codes with links to videos to assist the teacher in utilizing the technology included in the digital platform. Videos included are Realize and Google Classroom Setup, Getting Started with Realize, Playlist Sharing, Interactive PDFs, Transfer Student Data, and Realize for Parents and Students. The user guide also includes QR codes with links to e-text translation and accessing e-text online but states this is available by program. The user guide is designed for the Learning Management System utilized by several materials and is not specific to this set of materials.
- The Realize User Guide provides teacher guidance for the use of embedded technology to support and enhance student learning. It provides illustrated instructions on navigating the software, accessing and assigning content, managing assignments, scoring work, and what the student experience looks like.
- The My Savvas Training platform provides teacher guidance for the use of embedded technology to support and enhance student learning. The self-paced learning modules provide a video tutorial and printable handouts. There are topics to support getting started, assessments and reporting, and Google integration.
- Materials provide teacher guidance for the use of embedded technology to support and enhance student learning. My SAVVAS training platform is a self-paced learning module that provides a video tutorial and printable handouts for teachers to use during the year. One example of training is Explore Elevate Science K-5: "Learn how to fill out a lesson planning

template one step at a time, see the purpose of phenomena-based learning, and even try a virtual teaching scenario complete with reflection and next steps."

- The Teacher Support section on SAVVAS Realize includes guidance for teachers to use technology. The Navigational Support link includes the link to the Realize User Guide that includes Navigation Realize, Accessing and Assigning Content, Helpful Class Tools, Managing Class Assignments, Scoring Student Work, Student Experience, Available Integrations, and Help and Support Resources.
- Within the Getting Started guidance documents, there is a Digital User Guide to provide teachers guidance on the use of embedded technology. The guide includes content about Navigating Realize, accessing and assigning content, helpful class tools, managing classroom assignments, scoring student work, student experiences, available integrations, and help and support resources.
- The Getting Started Page includes guidance and support for using digital materials, including links to several online training modules. These training modules include the synchronous Virtual Program Activation Training, Additional Technical Support and Training, and mySavvas training on Google Docs/Google Classroom and Realize/Realize Reader.

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

- The materials provide a video titled Realize for Parents and Students. The video assists parents with navigating the dashboard for the digital platform The video shows parents where to access digital textbooks, where to access each of the student's Realize classes, where to find and access assignments, how to help the student find and participate in class discussions, and view grades. The video shows parents where to find additional resources and where to go in settings to change the language they wish to use. The video shows parents where to navigate for additional help with the digital platform and how to sign out of the platform.
- The materials provide a one-page Parent Access Instructions document. The document includes an image of the Realize dashboard with labels and descriptions of the various components found on the dashboard. Information highlighted includes Navigate Anywhere, Student Profile, Find Content, At-a-Glance Info, and Get Help.
- Materials provide a parent letter in English and Spanish with instructions for families on how to log into digital and online components. The letter includes space for the student’s username and password. It includes instructions on how to get started and troubleshoot errors.
- Materials provide a parent website called Parents Corner to assist caregivers navigate the Realize platform. The website includes pages for the Realize Parent Guide, Realize Help for students and parents, how-to videos for students and parents, and tips for learning at home.
- The Teacher Support section on SAVVAS Realize includes a Realize Parent Support link. This link includes four links as support for parents using Realize. The Realize Parent Guide is for caregivers to support student engagement with digital technology and online components. The guide includes topics such as: Viewing & Accessing Assignments, Completing And Submitting Assignments, Grades & Teacher Feedback, and Browsing Realize & Offline Access.
- The Materials include a Parent Letter for parents and caregivers on how to support student engagement with digital technology and online components. The Parent Letter contains a brief explanation of the program, instructions on how to get started, a troubleshooting checklist, and how to get help when needed.

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- In the Getting Started with Texas Experience Science section of the online materials, there is a Realize Parent Support section under Navigational Support. The resource consists of a Realize Parent Letter, Realize Parent Guide, Realize Learner Tips for Parents, and Realize Parents Corner. The Parent Letter explains how parents and students can access the program from home. Students are given a username and password to access their assignments at home.
- The Realize Parent User Guide gives parents visual instructions on how they are able to view and access assignments, complete and submit assignments, see grades and teacher feedback, and browse program content and offline access from home.