# **Savvas Learning Texas Experience Science Grade 5 Executive Summary**

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

Grade	TEKS Student %	TEKS Teacher %	ELPS Student %	ELPS Teacher %
Grade 3	100%	100%	100%	100%
Grade 4	100%	100%	100%	100%
Grade 5	100%	100%	100%	100%

#### **Section 2. Instructional Anchor**

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

#### **Section 3. Knowledge Coherence**

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

#### **Section 4. Productive Struggle**

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

#### Section 5. Evidence-Based Reasoning and Communicating

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

#### **Section 6. Progress Monitoring**

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

- The materials include guidance that explains how to analyze and respond to data from assessment tools.
- The assessments are clear and easy to understand.

#### **Section 7. Supports for All Learners**

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

#### **Section 8. Implementation Supports**

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

#### **Section 9. Design Features**

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

#### Section 10. Additional Information

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

#### **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.	М
2	Materials provide multiple opportunities to make connections between and within overarching concepts using recurring themes.	М
3	Materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS.	М
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.	М

#### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide multiple opportunities for students to interact with grade-level
  appropriate scientific and engineering practices (SEPs) as outlined in the TEKS. Within the
  Explore portion of an experience (lesson), a green section titled *Thinking Like A Scientist* and a
  blue section titled *Mastering Scientific and Engineering Practices* advise teachers on how best to
  support students with the development and practice of the science and engineering practices
  within the lesson.
- Students experience age-appropriate phenomena to engage them in using the SEPs. For example, in Topic 3, *Energy*, the anchoring phenomenon video asks, "What happens to make the shoes light up?" The accompanying student anchoring activity requires students to build models

- and collect evidence as they design and conduct investigations to help answer the guiding question.
- The materials provide students opportunities to practice and demonstrate mastery of grade-level appropriate scientific and engineering practices. In each topic, STEAM Station Activity Cards provide students with the development, practice, and mastery of grade-level SEPs outlined in the TEKS. For example, in Topic 7, Experience 1, students think like a scientist and perform an investigation by refining the design of a robot.

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

- The Recurring Themes and Concepts (RTCs) are listed in the Table of Contents and spotlighted within each topic. For example, the Teacher Overview information in Topic 3, *Energy*, includes targeted RTCs such as *use scale to compare different systems* and *examine parts of a system*. Embedded throughout the course, the RTCs allow students multiple opportunities to make connections between and within overarching concepts.
- Each topic contains multiple student activities to support and connect the RTCs. For example, in Topic 3, Experience 2, the Hands-On Activity Station allows students to investigate the recurring theme of examining parts of a system as they answer the question, "How can a circuit light two bulbs?"
- The materials guide students to practice and make connections between and within overarching
  concepts and recurring themes. For example, the materials include student worksheets titled
  "Plan and Conduct an Investigation," "Use Models to Analyze Data," and "Recurring Themes and
  Concepts." For teachers, there is an editable slide presentation for direct instruction on
  recurring themes and overarching concepts.

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

- The lessons within each topic are strategically and systematically presented in a 5E model structure and include an anchoring phenomenon and an engage phenomenon. The phenomena are revisited during the 5E model lesson cycle and Topic Wrap-Up. In the section titled Getting Started with Texas Experience Science, the materials include 5E model history and research. Also, the TEKS progression in each Topic Overview shows the vertical alignment and development of the TEKS for the current grade level, the TEKS connections to the previous grade level, and how the current grade-level content TEKS establish a foundation for the upcoming grade level.
- Within each topic, materials such as anchor charts and literacy and vocabulary activities
  systematically build students' knowledge and investigating skills to support content TEKS. For
  example, Topic 4, Earth and Space, opens with an anchoring phenomenon video about why the
  Sun disappears every night; then, students explore with a literacy station about the Earth's
  rotation and its relation to day and night and participate in a vocabulary and STEAM activity
  about Earth's rotation.
- The hands-on stations and activities located within the Engage, Explore, and Elaborate sections of each lesson develop and broaden students' content knowledge and skills. For example, to activate student learning, Topic 5, Experience 2, begins with an everyday phenomenon question asking, "How can multiple forces move a rope?" Next, students explore a hands-on station, a literacy station, and a virtual lab to guide students through their thinking. Afterward, students

participate in a STEAM activity to design and test a balloon rocket system. Finally, students revisit the anchoring phenomenon to see how their thinking changes.

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

- The materials contain sufficient opportunities for students to ask questions, conduct investigations, and engage in problem-solving, as evident through the 5E lesson cycle. The Explore section contains *Before the Stations* (examples of activating prior knowledge), *During the Stations* (hands-on activity), and *After the Stations* (literacy connections). The Explain section of the 5E lesson cycle provides teachers with a key ideas presentation and video. The Elaboration section contains student opportunities to practice new skills through STEAM activities and Physics Education Technology (PhET) Simulations. Each topic contains a Wrap-Up section with a Topic Reader to engage English Language Arts and Reading (ELAR) connections and Vocabulary Games to connect the science vocabulary. The Evaluation section allows teachers to revisit the phenomenon and measure student understanding of the introduced content.
- The materials include opportunities for students to engage in problem-solving to make connections across disciplines and develop an understanding of science concepts. In Topic 2, Experience 2, Hands-On Station Activity, students observe the force needed to pull a toy car up a ramp, identify one test variable, and design an experiment to see how that variable affects the force. Next, students analyze their results to draw a conclusion. In the Elaborate portion of the lesson, students conduct a STEAM Station Activity to change a balloon rocket system and explain how the change affects the rocket's motion. Finally, students revisit their thinking about the anchoring phenomenon.
- The materials provide sufficient opportunities for students to ask questions and utilize a variety of hands-on learning activities. Each experience begins with a question that is relatable to students' lives. Each topic provides multiple hands-on learning events, including a STEAM activity and an online gaming component. Students are provided with opportunities to make athome learning connections. For example, a community support section titled *Take it Local*, where students conduct a field trip around the school to locate natural resources in their environment, is included in Topic 5, Experience 3.

#### **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.	М
2	Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems.	М
3	Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.	М

#### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

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

- arctic tundra plants. Later in the topic, the Literacy Station Card Activity uses a photo of arctic tundra plants to model for students how different species survive in the same environment. During the Elaborate portion of the lesson, students conduct a STEAM investigation to research the structures and functions of deep-sea creatures.
- The materials use phenomena as a central anchor that drives student learning throughout each component of a 5E lesson cycle. In Topic 3, *Energy*, the anchoring phenomenon includes a video where students observe energy transformation in an electric scooter and begin to connect how energy is transformed in light-up shoes. The anchoring phenomenon question asks, "What happens to make the shoes light up?" Students progress to the Engage portion of the lesson, where they experience an Everyday Phenomenon about what makes an electric scooter move. During the Explore portion, students conduct a hands-on station activity to explore the transformation of energy in a flashlight. The Literacy Station Activity guides students to discover how energy changes forms. An option to extend the Experience is provided with a Physics Education Technology (PhET) simulation activity where students identify how energy is transferred between objects. Lastly, students revisit the anchoring phenomena to track how their initial thinking changed.

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

- Materials include opportunities to activate students' prior knowledge throughout all topics (units). Each topic opens with an anchoring phenomenon activity enabling students to use prior knowledge as evidence for the model. For example, Topic 7, Organisms, opens with the following phenomenon question, "How does crawling help baby sea turtles in Texas?" During the Explore portion of Experience 1, students learn about external structures and functions as they complete a hands-on station activity where they address the question, "How do mouth structures help animals collect food?" by constructing models of animal mouths to mimic food collection.
- The materials provide options for the learning phenomena by including related phenomena that can be used as an alternative to introducing the lesson. For example, Topic 7, *Organisms*, opens with a phenomenon about the structures and functions of Texas sea turtles. For students with little or no prior knowledge of sea turtles, the teacher may choose to introduce the lesson by using phenomena related to a plant or wild animal found in their community.
- The materials allow for different entry points to the learning phenomena and provide related phenomena that can be used as an alternative to introducing the lesson. For example, in Grade 5, Topic 7, if students are not familiar with turtle hatchlings crawling toward the ocean, teachers may choose a plant or wild animal that lives in their area.
- The materials provide guidance for teachers and students to adequately address potential areas of misunderstanding. Each experience has a teacher section for guidance on addressing misconceptions. For example, grade 5, Topic 6, Experience 4, has a section reminding the teacher that many students may think fossils are common and easy to find. It gives the teacher ideas for addressing this misconception.
- The Explore portion of each lesson contains an "Address Prior Knowledge" teacher section. In the Topic 1, *Matter*, Launch section, "Address Prior Knowledge" provides teacher prompts such as, "What other mixtures are you familiar with?" Furthermore, each Topic Wrap-Up revisits the unit anchoring phenomenon, where students must use their prior knowledge to complete the anchoring phenomenon activity. In Topic 3, *Energy*, students are asked, "What happens to make the shoes light up?" The materials clearly leverage students' prior knowledge and include

class discussions centered around an anchor chart which is often revisited throughout each topic.

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

- The Topic Overview details for the teacher the anchoring phenomenon question, which students answer during the experiences progressing through a topic. For example, in Topic 3, *Energy*, students answer the anchoring phenomenon question, "What happens to make the shoes light up?"
- Each topic includes scripting for the teacher for the Anchoring Phenomenon section. For example, Topic 3, *Energy*, contains scripting for the teacher for Launch the Anchoring Phenomenon, "What do you think causes an object to light up?" The anchoring phenomenon video includes the question, "If you were an engineer, how would you design light-up shoes?"
- Phenomena and engineering problems are garnered in an engaging video for students and teachers to preview the topic. In addition, the materials include teacher preparation videos and science concept background videos outlining the concepts and goals for each topic. For example, in Topic 4, Earth and Space, the teacher is directed to watch the Teacher Background Video, Earth and Space, for background knowledge of the unit content. A bulleted list of key concepts to support instruction is included as well.

#### **Indicator 3.1**

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

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

#### Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- Designed to build knowledge systematically, coherently, and accurately, the materials increase in complexity within and across units and grade levels. The materials include a TEKS Vertical Alignment Grades 3-5 document that represents the TEKS alignment for grades 3, 4, and 5 science content TEKS, the Science and Engineering Practices TEKS (SEPs), and the Recurring Themes and Concepts TEKS (RTCs). In grade 5, students demonstrate that electrical energy in complete circuits can be transformed into motion, light, sound, or thermal energy and identify the requirements for a functioning electrical circuit. In the previous grade, students identify conductors and insulators of thermal and electrical energy. In grade 6, students describe how energy is conserved through transfers and transformations in systems such as electrical circuits, food webs, amusement park rides, or photosynthesis.
- Evidence of horizontal alignment within the grade-level materials is present as well. The
  materials include a detailed TEKS Grade 5 Correlation document, outlining the location of all
  TEKS and showing alignment across Topics (units). For instance, in the first Experience (lesson)
  of Topic 1, Matter, fifth-grade students focus on the properties of matter. As students progress
  through the Experiences in this unit, they apply prior knowledge of properties of matter by
  exploring how mixing affects the properties of substances in Experience 3, Mixtures and

- Solutions. These grade 5 TEKS concepts vertically align with grade 4's Topic 1, Matter, Experience 1, Properties of Matter, and Experience 2, Solids, Liquids, and Gases.
- Within each Topic Overview there is a TEKS Progression header with sub-sections labeled Look
  Back, In This Topic, and Look Ahead. This section of the materials focuses solely on Topic vertical
  TEKS alignment for the previous and current grade levels.

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

- The materials use a 5E lesson cycle that provides teachers with multiple opportunities to scaffold student learning and deepen conceptual understanding as students experience a Topic anchor phenomenon which sets the stage for the unit Storyline. Additionally, lessons are launched with a related everyday phenomenon and then progress through multiple investigations during the Explore stage. During the Elaborate phase, students apply their acquired knowledge to a new challenge or situation. Lastly, the unit concludes with a Topic Wrap-Up, enabling students to revisit the phenomena and adjust their thinking and ideas about the introduced concepts.
- For example, in Topic 1, Matter, the lesson launches with the everyday phenomenon question, "How do different materials handle the heat?" During the Explore portion of the Experience, students make robust connections to the introduced concepts through multiple investigations. Finally, students revisit their ideas and questions about the initial everyday phenomenon and apply what they have learned in the stations. Differentiated instruction in Topic 2, Force and Motion, is provided for Experience 2, Forces. For students struggling to record their observations, teacher scripting suggests offering extra support by asking the following questions: "What was the height of the ramp this time? What was the mass of the car this time? How much force was needed to pull the car?" Furthermore, guidance is provided for mastering scientific and engineering practices. For example, in Topic 2, Force and Motion, Experience 2, Forces, the teacher scripting for Communicate Explanations and Solutions suggests having students ask and answer questions about which variable they chose to change and how that change will affect the amount of force needed. This scaffolding of learning within each Experience allows students to utilize targeted SEPs TEKS, adjust or deepen their content understanding, relate to specific RTC TEKS, and connect their experiences to the everyday lesson phenomena.

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

- The Teacher's Guide includes a scope and sequence which represents the grade-level science content, the science and engineering practices skills, the recurring themes and concepts (RTCs), and the English Language Proficiency Skills (ELPS) as outlined in the TEKS Grade 5 Correlation chart.
- The TEKS Vertical Alignment document located in the *Getting Started with Texas Experience Science* matter, along with the Topic Overview pages in the Teacher's Guide clearly present grade-specific core science concepts, the recurring themes and concepts, and the science and engineering practices stated in the TEKS. This information is also listed in the margins of the Teacher Guide on the page with the corresponding activity. For example, in Topic 2, *Force and Motion*, one of the targeted SEPs TEKS is communicating explanations and solutions. An RTC TEKS for Topic 2, *Force and Motion*, is to identify and investigate cause-and-effect relationships

- to explain scientific phenomena or analyze problems. Furthermore, question prompts and teacher suggestions are included to support the TEKS during the hands-on stations.
- Additionally, each unit contains a Topic Overview that provides teachers with a Teacher Background video and a Teacher Prep video for grade-level instruction of core science concepts, recurring themes and concepts (RTCs), and the science and engineering practices (SEPs). Each Topic Overview also includes a TEKS Progression section with three sub-sections titled, Look Back, In This Topic, and Look Ahead which list vertically aligned TEKS associated with the unit. Each Topic Overview also displays targeted TEKS for SEPs, RTC, and ELPS, as well as any related English Language Arts (ELPS) TEKS addressed in the unit.

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

- Each Topic presents opportunities for students to demonstrate mastery of materials within the boundaries of the grade-level TEKS. For example, the third lesson of Topic 1, Matter, contains an Everyday Phenomenon Video Exit Ticket question, "How can you separate parts of a mixture?" As students enter into the Explore portion of the lesson cycle, the Literacy Station Activity provides an opportunity for students to demonstrate their mastery of the material by answering the question, "How does mixing edible ingredients affect their properties?" The Evaluate portion of the lesson contains a quiz to measure mastery of student material. A Wrap-Up Topic assessment is included at the end of this unit. The unit assessment questions and exit tickets are within the boundaries of the main concepts included in Topic 1, Matter, and they align with the grade-level TEKS.
- In addition, the materials provide a scope and sequence outlining where learning targets are introduced, developed, and mastered within the program. Each Experience contains an At-A-Glance page that includes learning objectives. For example, in Experience 1 of Topic 4, Earth and Space, the student learning objective is to demonstrate the Earth rotates once on its axis approximately every 24 hours. Objectives and Areas of Focus are given for each portion of the 5E lesson within this experience.
- The vertical alignment of the TEKS clearly defines the boundaries for each grade level. For example, fifth-grade students learn how to investigate and describe the transformation of energy in systems such as energy in a flashlight that changes from chemical energy to electrical energy to light energy. Investigating and identifying the transfer of energy of objects in motion is taught in fourth grade, whereas grade 6 students compare and contrast kinetic energy with gravitational, elastic, and chemical potential energies. The Topic Wrap-Up includes an editable unit test with options to incorporate multiple choice and short-constructed response questions to assess mastery of the energy concepts.

#### **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.	М
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.	М
3	Materials explain the intent and purpose of the instructional design of the program.	М

#### Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The materials include guiding documents to support teachers' understanding of how new learning connects to previous and future learning across grade levels. The scope and sequence displays the vertical alignment of grade-level content. Furthermore, each unit includes a Topic Overview which lists all TEKS covered in the lesson (content, science and engineering practices, recurring themes and concepts, English Language Proficiency Skills, and English Language Arts and Reading-if applicable). The scripting is organized into easy-to-follow sections titled, Look Back, In This Topic, and Look Ahead. For example, Topic 6, Interactions in Ecosystems, includes TEKS for all categories, showing both vertical and horizontal content TEKS support for teachers in understanding grade-level content. The TEKS progression shows how the topic connects to what the students learned in the previous grade and looks ahead to see the students' connection for the next grade level.
- The materials provide a section to the Teacher's Guides of the Spiraling Activities titled "Content Progressions Within and Across Grade Levels" that explains how content and concepts progress within and across grade levels. For example, the grade 5, Topic 6 "Content Progressions Within and Across Grade Levels" guides teachers with explicit statements about how the content in grade 4 as well as in Topics 1, 3, and 5 provide a foundation for the content in Topic 6 as well as

how the content in Topic 6 will provide a foundation for what students will be learning in grade 6.

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

- The materials include a Teacher Background section and a Teacher Prep section within the Topic Overview Teacher eText for each Topic (unit). The Teacher Background section contains a bulleted list of key concepts and a video to support teacher content knowledge for a Topic. For example, Topic 6, *Interactions in Ecosystems*, explains the components of an ecosystem, the definition of *biotic*, and the attributes of a healthy ecosystem. The video also reviews previous grade-level concepts which support the current grade-level Topic content. The videos in the Teacher Prep section provide teachers with lesson guidance and management strategies.
- The materials provide a Common Misconceptions section for teachers in the Overview section of each Topic. For example, in Topic 2, Force and Motion, the teacher's scripting shares common student misconceptions including the idea that "temperature is an accurate measure of thermal energy." The Misconceptions section also contains teacher guidance to help correct student misbeliefs.

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

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

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

#### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials contain multiple opportunities for students to make sense of science concepts through reading, writing, thinking, and acting as scientists and engineers. The *Designed for Texas Grade 3-5* document states the Explain/Elaborate sections of each Topic include a Key Ideas Presentation with teacher instructions to, "Discuss students' data from their investigation to build students' sense-making." For example, Topic 7, *Organisms*, Experience 1, *Structures and Functions*, instructs the teacher to open the Key Ideas Presentation and check for student sense-making. Students share what they learned in the stations.
- In Topic 1, *Matter*, students watch and respond to a video of mixing cornstarch and water. The teacher leads a discussion about what students think is happening in the video and asks the following question: "How does the mixture change when the ingredients are combined?" Using a think-pair-share strategy, students work with a partner and complete the claim-evidence-reasoning framework to explain how the mixture changes. Through hands-on activities, students

- act like scientists and revise their claim-evidence-reasoning throughout the Topic. Using an anchor chart activity, students record and organize their thoughts. Finally, the teacher presents students with Topic Readers and encourages them to read high-interest books or select titles to answer the remaining questions they have about the science topic.
- Within Topic 3, Energy, Experience 3, Light, students experience a literacy station where they read about light, discuss how science tools affect our view of objects, compare and contrast light, and summarize the reading material and discussions. In Topic 5, Patterns on Earth, Experience 2, Slow Changes to Earth, students explore the phenomenon of sand dune formation while visiting other phenomena, such as how wind, water, and ice cause slow changes to our environment. Students think and act like scientists while observing the phenomena and then write a claim-evidence-reasoning to support how the environment changes slowly over time. Students also incorporate reading throughout the lesson as they explore the various phenomena.

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

- The materials consistently embed multiple opportunities for students to engage with grade-level appropriate scientific texts through purposeful and targeted activities such as vocabulary-related tasks, Topic Readers, and Steam and Literacy Stations. For example, in Topic 1, Matter, Experience 2, Solids, Liquids, and Gasses, students read about solids, liquids, and gasses, and they read again for a hands-on experiment and read information during a literacy station using strategies including rereading, using prior knowledge, asking questions, and taking notes to monitor understanding of the text. After reading, students work in pairs asking and answering questions about the text.
- In Topic 2, Force and Motion, students investigate equal and unequal forces in a marble system. Afterward, in the literacy station activity, students use the Read About It to practice making connections to personal experiences including a time they observed a heavy object move.
- Furthermore, Each Topic Overview includes a Connect to Literacy section for teachers to share with students. In Topic 3, *Energy*, a suggested topic book is *Energy* by Jennifer Earnshaw, and *You Wouldn't Want to Live Without Electricity!* by Ian Graham is a recommended trade book. Additional student book titles are listed and can be used with whole groups, small groups, or as enrichment.
- The Table of Contents includes a resource to choose Topic Readers for additional information. Teachers can filter and choose books based on specific standards. For example, a book title search for the matter standard 5.6C returns two additional titles: Changes in Matter, and Properties of Matter.

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

 The materials provide multiple opportunities throughout each lesson cycle for students to use both written and graphic modes of communication to develop and display an understanding of scientific concepts. For example, Topic 3, Energy, contains readers for student engagement, as well as graphic organizers to assist students with understanding scientific concepts. Written communication and graphic modes are evident in the provided student exit tickets. In the

Evaluate section of Topic 3, Energy, students complete an exit ticket by drawing and labeling a diagram of a circuit. And students write short constructed responses to answer questions on the Evaluate Quiz.

- During the Everyday Phenomena section of Topic 4, *Earth and Space*, Experience 2, *Patterns and Shadows*, students record and draw their predictions and observations for the Phenomenon Activity, and in the Hands-On Experiment section, students record observations of shadow changes throughout the day.
- In Topic 3, Energy, Experience 1, Energy Changes, students watch an everyday phenomenon video and record questions about how energy changes in a circuit, as well as what ideas they want to investigate. In the Explore section of the lesson, students disassemble a flashlight and draw a labeled diagram of the flashlight's components. In the next lesson, students explore the Read About It section on Electrical Energy and Circuits. Students then draw a diagram of an electric circuit, label its components, and explain their functions.

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.

- The materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering practices by utilizing the 5E lesson model and allowing students to go through the learning process as a scientist. Productive struggle is present in the design models where students discuss design strengths and weaknesses and have opportunities to adjust their design. Collaboration and design thinking are evident in the STEAM activities as students work with their design team to create prototypes. For example, in Topic 1, Matter, Experience 3, Mixtures and Solutions, students experience the engineering design process as they observe the physical properties of substances before and after mixing them with water to make their own paint. The materials also create transfer opportunities for students to apply their science knowledge to new situations. For example, students are provided time to use what they learned about the physical properties of mixtures and adjust the materials to create the best paint formula.
- The materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering practices in the STEAM activities that relate to the Thinking Like a Scientist section found in each Topic. For example, in Topic 3, Patterns on Earth, Experience 4, Conservation, students design and build a product made from discarded class materials, test design prototypes, and improve their design based on testing results. Next, students communicate how their new product reduces the environmental impact on natural resources. The Thinking Like a Scientist section enables students to evaluate like a scientist by using a set of criteria when reviewing their design.
- Experiences include hands-on station cards. These cards allow students to engage in phenomena and the engineering design process, make sense of the concept, and productively struggle to learn. For example, in Topic 5, *Patterns on Earth*, Experience 2, *Slow Changes to Earth*, students model and learn about the formation of river deltas. They describe what will happen, build a model, and demonstrate how river deltas form. During the demonstration, students draw their observations, record an explanation of the process, and explain how they could change the model to test another factor.

#### **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.	М
2	Materials include embedded opportunities to develop and utilize scientific vocabulary in	М
2	context.	
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
	Materials provide opportunities for students to construct and present developmentally	
4	appropriate written and verbal arguments that justify explanations to phenomena and/or	М
	solutions to problems using evidence acquired from learning experiences.	

#### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials prompt students to use evidence and support their hypotheses and claims as evident in Topic 2, Force and Motion, Experience 2, Forces. In this lesson's Hands-On Station activity, students work to answer the question, "How do changes in a system affect forces on an object?" They design an experiment to investigate changing one part of a car—ramp system. To explain their reasoning, students create a data table of their evidence from the investigation and draw conclusions. Students use this information to respond to the following Conclusion prompt: "Explain how the changes you made in the car—ramp system affected the force needed to pull the car up the ramp. Use data to support your conclusion."
- The materials provide the opportunity for students to use evidence for support through the Revising Anchoring Phenomenon section of the Topics. For example, Topic 7, *Organisms*, Experience 2, *Animal Behavior*, students add revised claims, evidence, and reasoning to their Anchoring Phenomenon Activity. The Revisit Anchoring Phenomenon section prompts students to support their claims made throughout the activity.
- The materials provide opportunities for students to develop evidence to support their
  hypotheses and claims. For example, in Topic 1, Matter, the Anchoring Phenomenon video asks,
  "How is this mixture different from its parts?" The materials direct the teacher to prompt

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

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

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

- The materials include embedded opportunities to develop and use science vocabulary in context as evidenced in the Hands-On Station of the Explore section in Topic 6, *Interactions in Ecosystems*, Experience 1, *Organisms in Ecosystems*. After completing the activity, students show mastery of new vocabulary terms by responding to the Describe Prompt, Draw a diagram of a small habitat for common earthworms. Include both nonliving and living, or recently living, things the worms need to survive. Label each item and write a short description next to it explaining why it is needed.
- There are many embedded opportunities for students to develop and utilize scientific
  vocabulary in context throughout the Topics. Each Topic begins with Vocabulary in the Launch
  section. Vocabulary cards provide the Topic vocabulary words, along with a picture and
  definition. The cards are used as an introduction and referenced throughout the unit's stations.
  The Vocabulary Context section located in the Explore portion of the lesson guides students to
  develop and utilize scientific vocabulary. For example, in Topic 1, Matter, Experience 1,
  Properties of Matter, students explain the meaning of durable and then compare spoons made
  of different materials using the vocabulary word durable.
- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience in which students can contextualize new terms. For example, in Topic 1, *Matter*, Experience 3, *Mixtures and Solutions*, students utilize the vocabulary activity cards after they complete the hands-on Explore station. The Teacher Guide prompts the teacher to ask the students to identify mixtures and solutions in their daily lives and to ask simple questions about how well substances, such as sand, salt, sugar, and flour, dissolve in water. Students then use the terms mixture, solution, and solubility in their responses. The materials also present scientific vocabulary using multiple representations. For example, in Topic 1, *Matter*, students read grade-level appropriate text with embedded vocabulary while studying mixtures and solutions. Materials present vocabulary activity cards with clear photographs that include definitions that use student-friendly language.

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

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

through the lesson. For example, Topic 6, *Interactions in Ecosystems*, includes open-ended questions such as "What kinds of animals have you seen near a road?" and "Why might an animal need to cross a road?" After each Anchoring Phenomenon Video, the materials guide the teacher to lead a class discussion about what students think is happening in the video. This opportunity fosters student argumentation and discourse of content knowledge.

- Another example in which the materials integrate argumentation and discourse to support content knowledge appears in the STEAM Station Card activity of Topic 5, Patterns on Earth, Experience 4, Conservation. Students explore the answer to the question, "How can we design an environmentally friendly school cafeteria?" Students research and design an environmentally friendly school cafeteria. Their model is an illustration that shows the basic structure of a school cafeteria. Scripting for the teacher reminds students to "Use information from your research to add to this design or make a new design. Include labels in your drawing to show how you addressed the design criteria." Students draw conclusions by getting student feedback. The teacher guide states, "Share your design with other students. Ask for feedback about how your design could be improved. Record the most useful feedback you received. Then make changes based on the feedback."
- The materials integrate argumentation and discourse to support content knowledge as evident in Cross-Curricular Activities, such as in the Park Proposal activity in Topic 7, *Organisms*, Experience 1, *Structure and Function*. After the presentation, students read the notice and then think critically about their community needs and participate in a discussion. Students are reminded to be active participants in the community meeting. The Teacher's Guide shares, "When it's your turn to talk, speak clearly and make eye contact with your audience. When other people are talking, listen closely and be respectful of other groups' positions."
- The materials provide opportunities for students to develop how to engage in the practice of argumentation and discourse. For example, in Topic 2, Force and Motion, the materials introduce students to constructing an argument for their own interpretation of the Anchoring Phenomenon, How does the rocket lift off the ground? The materials provide instructional support to go beyond simply making claims by directing students to evidence from the video, their personal experiences, and their prior knowledge to begin to distinguish evidence from opinion.
- Each Topic Wrap-Up includes opportunities for students to present and argue their ideas in the Revisit to the Anchoring Phenomenon. In Topic 5, Patterns on Earth, students rewatch the Topic Launch Anchoring Phenomenon video of snorkelers finding and removing trash from the ocean. The teacher's scripting encourages students to lead the discussion on how we can reduce environmental impacts from plastics by presenting their own thoughts and building on each other's thoughts as well. Students then revisit the activity sheet provided at the beginning of the Topic.

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

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

students to construct arguments. For example, in Topic 1, Matter, Experience 2, *Solids, Liquids, and Gasses*, students demonstrate mastery of content by citing their evidence and observations based on the Key Ideas Presentation about solids, liquids, and gasses. All Topic sections lead to a culminating activity where students apply what they learned throughout the Topic experiences and revisit ideas and question prompts.

- Each Topic Key Ideas Presentation includes activities that demonstrate understanding and application of the Everyday Phenomenon. The materials are printable for students' science notebooks. For example, in Topic 2, Force and Motion, Experience 2, Forces, students explain the difference in the force of friction in two pictures, one of a girl sledding on snow and the other of a girl sledding on grass. Then, students explain how these forces affect the girl's motion. Students record a definition and draw an example of kinetic and potential energy, and conclude the activity by drawing a picture of objects gaining potential or kinetic energy.
- The materials provide instruction for how to construct and present a verbal or written argument to problems using evidence acquired from learning experiences. For example, in Topic 1, Matter, students study the phenomenon video of mixing colored water with cornstarch to determine how a mixture changes when the ingredients are combined. Using the think-pair-share strategy, students construct a Claim-Evidence-Reasoning framework to explain how a mixture is different from its parts. The framework helps students develop reasoning to support and justify their claims. The provided teacher's scripting reminds students that their reasoning should explain how their evidence supports the claim.

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

#### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking in many ways. The Topic Launch includes questions for the teacher to ask, as well as responses based on possible student answers or lack of answers. For example, in Topic 6: *Interactions in Ecosystems* Launch Activity, the teacher asks, "What are the living parts of this ecosystem?" If students do not mention *bird*, *squirrel*, or *grass* as the correct answer, the teacher's scripting provides follow-up questions. Furthermore, the Common Misconceptions section of the Teacher's Guide provides common student misconceptions with teacher guidance. For example, Topic 7, *Organisms*, lists the following misconception: "Organisms live in an ecosystem because they have the same behaviors and get along well with each other." The teacher is prompted to guide students to an understanding that organisms in an ecosystem have specific structures and functions that allow them to survive in that environment.
- The materials provide teacher guidance on anticipating student responses and the use of questioning as evidenced by Topic 4, Earth and Space, Experience 1, Earth's Rotation. During the Engage portion of the lesson, students work with Mastering Recurring Themes and Concepts and the question, "What causes the day-night cycle on Earth?" Students determine what other

cause-effect relationships they observed in this lesson. During the Hands-On Station, the materials guide student thinking by encouraging students to think about the advantages and limitations of modeling the Sun-Earth system. To stimulate student discourse the teacher is prompted to ask, "How is the model of the Sun-Earth system different from the actual Sun and Earth?"

- The materials provide teachers with possible student responses to questions and tasks. For example, in the Anchor Chart Activity for Topic 1, *Matter*, the materials provide the teacher with the following questions: "What are the properties of the substances shown on the left?" and "What are the properties of the mixtures shown on the right?" The teacher's scripting also lists possible student responses and specific correct answers.
- The materials include teacher support to deepen student thinking through questioning. Each Literacy Station Activity lists teacher questions to facilitate student discussions. For example, in Topic 1, *Matter*, Experience 3, *Mixtures and Solutions*, students read about how mixing edible ingredients affects their properties. The Teacher's Guide prompts the teacher to ask the following questions: "What are some facts that you learned from the text?", "How does what you learned connect to what you already know?", "Did any of the information you read about change your mind about mixtures and solutions?", and "If so, what was it?"

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

- The materials include teacher guidance on scaffolding and supporting student understanding of scientific vocabulary as evident in Topic 4, Earth and Space, Experience 1, Earth's Rotation, Engage activity where ELPS strategies scaffold understanding of vocabulary. For example, at the beginner level, students model using the words rotation and axis as they spin a globe. The teacher is instructed to have the students repeat the actions using the terms. For the advanced high level, students discuss with a partner their observations in the video. Then partners take turns asking questions about how the words model, rotation, and axis relate to their observations. During the Explore portion of the lesson, the Literacy Station Activity guides student thinking by providing the following teacher's scripting, "How could you define this term in your own words?" After the station activities, the vocabulary support suggests the teacher display the word rotation and tell students what it means. Then guide students to generate related words, such as rotator. Furthermore, the Wrap-Up section includes a Vocabulary Game for students to practice the Topic vocabulary.
- The materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context through various parts of the Topics. For example, Topic 6, Interactions in Ecosystems, Experience 3, Human Impact on Ecosystems, contains Vocabulary Support in the Explore part of the lesson. The materials guide the teacher to prompt students to write, draw, or discuss a connection between what they experienced in the Hands-On Station and what they read in the Literacy Station using vocabulary from the Experience. Another example of vocabulary support is the green color-coded Vocabulary Support sidebar found throughout modules in the Teacher's Guide. The sidebar support alerts teachers of opportunities to support student use of vocabulary in context. For example, the sidebar provided in Topic 1, Matter, Experience 1, Properties of Matter, alerts teachers to direct students' attention to the photo caption and ask them to explain what the term durable means. Students then compare a metal and wooden spoon using the word durable.
- Vocabulary support is provided for each Explore section. In Topic 4, *Earth and Space*, Experience 1, *Earth's Rotation*, students complete the Explore activities and share their understanding of

- the words *orbit* and *satellite*. Then students use the words in a sentence to demonstrate the meaning of the words and what they have learned from the lesson.
- Each Topic Launch provides vocabulary cards that are used and referenced throughout the Topic. Teachers are encouraged to use the cards for a classroom word wall and include student input when constructing the word wall. Each vocabulary card includes a word, its definition, and a picture. There is also a Vocabulary Preview Activity that students can use with the words. For example, six vocabulary words are included In Topic 2, Force and Motion. During the Vocabulary Preview Activity, students "Circle the words they know, discuss with a partner, use one word in a sentence, and draw a picture of one of the discussed vocabulary words." This activity is revisited at the end of the Explore section.

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

- The materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct claims, both written and verbal. For example, in the Explore portion of Topic 2, Force and Motion, Experience 2, Forces, the Hands-On Station-Mastering Scientific and Engineering Practices has students ask and answer questions about which variable they chose to change and how the change will affect the amount of force needed. The teacher's scripting states, "After completing the activity, have students ask each other: Did your prediction match the outcome? Why or Why not? What other variable would you change to affect the amount of force needed?"
- The materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims through the Science and Engineering Practices (SEPs) and Recurring Themes Preview Activity. For example, the teacher's scripting in the Communicate Explanations section explains how to guide students through developing and communicating evidence through data collection and analysis and then making a claim or argument. In the activity, students use data in a table to develop an explanation about how the material of a ramp affects the distance a ball can travel. The teacher explains that scientists communicate their methods and results so that other scientists can repeat them and compare their results. Furthermore, the Everyday Phenomenon encourages student discourse by providing questions for the Everyday Phenomenon Activity. For example, in Topic 7, Organisms, Experience 1, Structure and Function, students record answers about structures and functions.
- The materials provide the teacher with questions to support student discourse and the use of evidence in constructing written and verbal claims. For example, in the Topic 1, *Matter*, Anchoring Phenomena Activity, students think-pair-share and use a Claims-Evidence-Reasoning framework to explain how a mixture is different from its parts. The guide prompts the teacher to remind students that their reasoning should explain how the evidence supports their claim.

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

• The materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions through the Anchoring Phenomenon used to open each Topic. For example, in Topic 5, *Patterns on Earth*, Anchoring Phenomenon Activity, the teacher facilitates a class discussion about students' thoughts regarding the phenomenon video using sense-making to help answer the question.

- Exit Tickets also provide opportunities for teachers to support students' thinking and finding solutions. For example, in Topic 5, *Patterns on Earth*, Experience 4, *Conservation*, students identify and describe their experiences with plants making a difference in the temperature of their surroundings, such as a shade tree or grass surrounding a basketball court. The teacher collects the exit tickets and refers to them throughout the Experience.
- Guidance for teachers is provided throughout each Experience. For example, during the
  Elaborate section of Topic 6, Interactions in Ecosystems, Experience 1, Organisms in Ecosystems,
  students participate in a STEAM activity to construct a space habitat in which they have limited
  materials to design and build an artificial ecosystem that could support the survival of an animal
  in space. Students have to investigate, model, explain, and analyze their designs.
- The STEAM Station Activity in Topic 1, *Matter*, Experience 3, *Mixtures and Solutions*, provides another example of how the materials include teacher guidance to facilitate students' thinking and finding solutions. In this activity, students attempt to determine what materials are best to make pool toys. The materials direct the teacher to ask probing questions, such as "What properties should Toy 1 have?" and "Which material do you think will be best for Toy 1?" to guide student conclusions.
- The materials provide teacher support for facilitating the sharing of students' finding solutions. For instance, in grade 5, Topic 1, Experience 3 in the STEAM station students attempt to determine what materials are best to make pool toys. The materials direct the teacher to ask probing questions, such as "What properties should Toy 1 have?" and "Which material do you think will be best for Toy 1?" to guide student conclusions.

#### 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.	М
2	Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment.	М
3	Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts.	М
4	Materials include assessments that require students to apply knowledge and skills to novel contexts.	М

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include exit tickets which are used as a form of formative assessment to measure student learning and determine the next steps for instruction. Exit tickets are provided throughout the components of the 5E model in each Experience. In Topic 2, Force and Motion, the teacher's scripting states, "Prompt students to identify an activity that also demonstrates the forces and Two people stand on opposite sides of a box and push on it. The box does not move. What does that tell you about the forces?" For example, in Topic 1, Matter, the teacher facilitates the Key Ideas Presentation after the students complete the Explore activities. Student volunteers share what they learned in the stations citing evidence and observations such as, "Wood floats or sinks and is not magnetic, and Steel sinks and can be magnetic. Aluminum sinks and is not magnetic." The teacher then facilitates student connections between the learned science content and the science practices they used during the lessons. Finally, the students complete an exit ticket after the Key Ideas Video.
- The materials contain a range of assessments that include formal and informal opportunities to
  assess student learning in a variety of formats. Summative assessments include quizzes and
  tests within each Topic. The Evaluate section of each Experience includes an editable quiz to
  assess students' mastery of concepts presented in each lesson. For example, Topic 6,

- Interactions in Ecosystems, Experience 2, Energy in Ecosystems, has a Topic Quiz about energy in ecosystems. In addition, each Topic Wrap-Up includes a Topic test and a short constructed response test to assess mastery of concepts presented in the unit.
- Although limited, diagnostic assessment is included in the discussions embedded in each Topic with the Anchoring Phenomenon. For example, Topic 2, Force and Motion, includes the Anchoring Phenomenon question, "How does the rocket lift off the ground?" The materials guide the teacher to use open-ended prompts such as, "Where have you seen a rocket lift off?" After watching the Anchoring Phenomenon video, the teacher leads a discussion about what the students observed in the video and asks, "What did you notice about the rocket when it lifts off?" Students work with a partner using the think-pair-share strategy for their Claim-Evidence-Reasoning (CER) framework. The Anchoring Phenomenon is then revisited after students have learned more about the concept, allowing the teacher to monitor progress and identify learning gains. The materials provide a pre-test for each Topic which is used to gather information to monitor student progress and identify learning gains.

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

- The materials assess all student expectations over the breadth of the course and indicate which student expectations are assessed, as evidenced in the Getting Started Grade 5 TEKS Correlations document. This document shows where the Scientific and Engineering Practices (SEPs) and Recurring Themes and Concepts (RTCs) are covered, as well as where the content TEKS are located in the materials. In the Overview section for Topic 1, *Matter*, the TEKS Progression chart shares students will compare and contrast matter, learn about mixtures and solutions, and illustrate how matter is made up of particles that are too small to be seen, such as air in a balloon. Students will also learn how to use scientific practices to plan and conduct descriptive investigations and identify and use patterns to explain scientific phenomena or to design solutions. The Topic Planner also includes science content TEKS, English Language Proficiency Standards (ELPS), and cross-content TEKS in each Experience within the Topic. For example, in Topic 1, *Matter*, Experience 1, *Properties of Matter*, the students must compare and contrast matter based on measurable, testable, or observable physical properties, including mass, magnetism, relative density, physical state, volume, solubility in water, and the ability to conduct or insulate thermal energy and electric energy.
- The materials include assessments that are aligned with TEKS and Curriculum standards. Student expectations are designed to measure student understanding and mastery of the concepts and skills taught in the materials. For example, the Topic 1, *Matter*, summative assessment assesses mastery of concepts presented within the Topic and includes student expectations assigned and taught during the Unit. The materials also indicate which student expectations are assessed.
- Materials assess student expectations and indicate which expectations are assessed. For example, in the Overview section for Topic 1, Matter, the Teacher's Guide shares TEKS progression notes and explains the student expectations covered in the Topic. The TEKS are covered throughout the Experiences in each Topic and then assessed with a Topic Test which is provided in both hard copy or digital (and editable) versions and includes both multiple-choice and open-ended responses. The digital version includes the TEKS tested, and an information icon is provided for teachers. The editable version includes the TEKS or student expectations shared in an answer key that also includes the questions, answers, and DOK levels for each question. The materials also provide student expectations for each lesson activity. For example,

within the expanded Teacher eText for Topic 7, *Organisms*, Experience 2, *Animal Behavior*, the text states the student expectations included in the Explore stations.

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

- The materials include assessments that integrate scientific concepts and science and engineering practices (SEPs) with recurring themes and concepts (RTCs) as evidenced by the STEAM Activity for Topic 6, Interactions in Ecosystems, Experience 3, Human Impact on Ecosystems, which includes the science and engineering practice of develop and use models, and the recurring theme and concept of explain how factors or conditions impact stability. In this activity, students are challenged to answer the question, "How does removing habitat affect butterflies?" Students investigate the problem and collect data. Students analyze the collected information to describe what happened in their model. The teacher's scripting states the following question to ask students: "How does removing habitat affect butterflies' ability to collect the nectar they need to survive?"
- The materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts with the STEAM Station Activities in each Topic. The STEAM Station Activities assess science and engineering practices as well as recurring themes and concepts through the five steps of the station. For example, in Topic 5, Patterns on Earth, Experience 4, Conservation, students define the problem, design a solution, conduct research and record ideas, draw a diagram of the design, and collect and record the best feedback. The Topic assessments at the end of each unit assess mastery of concepts presented in the Topic, including the scientific and engineering practices (SEPs) and the recurring themes and concepts (RTCs). For example, the Experience Quiz in Topic 6, Interactions in Ecosystems, Experience 3, Human Impact on Ecosystems, addresses science content student expectations included in the lesson, as well as targeted SEPs and RTCs addressed in the Experience. The short constructed response assessment for Topic 5, Patterns on Earth, requires students to analyze a diagram of the water cycle and compare and contrast the formation of a delta and a canyon. The assessment includes addressed science content TEKS, SEPs, and RTCs.

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

- The materials include assessments that require students to apply knowledge and skills to novel contexts. For example, in the STEAM and Virtual Activities in Topic 2, Force and Motion, Experience 2, Forces, students design a balloon rocket by taping a balloon to a straw on a string and then proceed to change one variable at a time. Students use their data to explain how the changes impact the distance the rocket traveled. In Topic 2, Force and Motion, Experience 2, Forces, the students conduct a virtual lab where they manipulate variables in a digital car race to investigate forces. The Imagine portion asks students to imagine they are a car designer and want to create a pedal to make a car travel faster. Solutions to these activities require students to apply their new learning and skills to these unique situations.
- The Hands-On Station Activities allow students to use learned content from the previous lesson and apply it to the task of answering the overarching question to demonstrate knowledge and skills. For example, during Topic 4, *Earth and Space*, Experience 1, *Earth's Rotation*, students demonstrate their knowledge of Earth's rotation by constructing a model of Earth on its axis.
- Materials include assessments in which students must apply knowledge and skills to a new phenomenon or problem. In Experience 2, Force and Motion, the provided guiz requires

students to use what they know about the states of matter to construct a written response that explains three different changes of state that occur in their kitchen. Another example occurs In Topic 7, *Organisms*, where students use what they know about organisms and adaptations to write a short constructed response to explain how the structures of plants and animals help them survive in the Sonoran desert.

#### **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.	М
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.	М
3	Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension.	М
4	Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.	М

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include information and/or resources that guide teachers in evaluating student responses. Each Experience quiz is editable and provides an answer key with sample student responses. For example, the quiz for Topic 1, *Matter*, Experience 1, *Properties of Matter*, provides a sample student response for the short constructed response question. A rubric is also provided for teacher guidance. Furthermore, each Topic Test provides the expected correct answers. For example, the materials provide an answer key with sample student-written responses and a rubric for teacher guidance for Topic 2, *Force and Motion*, summative assessment. Question 1 on the short constructed response test answer key lists the following suggested student response: "When the bowling ball hit the pin, it applied a force to the pin. The direction of the force was in the direction that the bowling ball hit the pin. The force on the pin caused the pin to start moving in the same direction as the force. The pin started moving because when a force acts on an object, it changes its motion. Since the pin was not moving, the applied force caused it to start moving." The answer key also provides a scoring rubric, the student expectation or TEKS, as well as the question's depth of knowledge (DOK).
- The materials include information and/or resources that provide guidance for evaluating student responses as evidenced by Topic 4, *Earth and Space* Topic Wrap Up, which provides the following questions with expected student answers. For example, "It is 10:00 p.m. A crescent

- moon rises in the East. What evidence do you have that the sun is still shining? Where are you on Earth relative to the sun?" The Teacher's Guide states the following suggested student response: "The moon reflects the sun's light." The answer key also provides teachers with a scoring rubric and identifies the addressed student expectations or TEKS, as well as the question's depth of knowledge (DOK).
- Each Experience includes a Key Ideas Presentation in the Explain and Elaborate sections that provides teachers with additional instructional guidance for evaluating student responses. For example, in Topic 6, Interactions in Ecosystems, Experience 2, Energy in Ecosystems, there is a Teacher Resource located by clicking on the three dots next to the student Key Ideas activity sheet that accompanies the presentation. The teacher can click on the three dots next to the Student Key Ideas Activity Sheet that accompanies the presentation. The suggested answers are located here and written in pink text. For example, the students examine changes in the flow of energy by imagining a disease that sickens some trees which stop producing seeds. They must predict how this change would affect the flow of energy in an ecosystem. The provided Teacher Resource sample student response states, "There would be less food energy available for the mice. Some mice might not survive, or they might move away. This change could affect the amount of energy available for the snakes and hawks."

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

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

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

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

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

- The materials provide resources and teacher guidance on how to leverage different activities to
  respond to student data. In the Teacher's Guide, the *Data Support* materials contain a Class
  Mastery By Standard section that provides data reports for how to group students according to
  assessment results based on quantitative data. The program contains a data tab with filters for
  teachers to search for activities to help students who need support on specific standards or
  concepts. For example, a teacher can filter the results for videos.
- The English Language Proficiency Standards (ELPS) guidance provides different activities to respond to student data based on beginner, intermediate, advanced, and advanced-high students. For example, in Topic 4, Earth and Space, Experience 1, students observe the Everyday Phenomenon Video of the sun setting over the horizon. Students are guided to think about what happens to the sun and where it goes at the end of the day. The ELPS differentiate this part of the lesson with the following instructional suggestions for students: "1) beginner-the teacher models rotation and axis while spinning a globe and students repeat; 2) intermediate-the students complete sentence frames together using appropriate vocabulary; 3) advanced-the students answer questions using vocabulary and then give their own definition; and 4) advanced-high-the students discuss the video with a partner, asking questions and using the vocabulary in their explanations of their observations."

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

#### **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.	М
2	Assessment tools use clear pictures and graphics that are developmentally appropriate.	М
3	Materials provide guidance to ensure consistent and accurate administration of assessment tools.	М
4	Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.	М

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Assessments contain items that are scientifically accurate, avoid bias, and are free from errors.
   For example, the Topic Quiz provided for Topic 3, Energy, Experience 2, Light, contains content appropriate questions that are free from errors and ask about light and how light travels.
   Summative assessments include items that align with taught objectives and present grade-level
   content and concepts, science and engineering practices, and recurring themes and concepts in
   a scientifically accurate way. For example, the summative test for Topic 4, Earth and Space,
   contains questions that identify the relationships between the Earth, sun, and moon and how
   this relationship causes predictable patterns on Earth.
- All assessment images, graphics, STAAR 2.0 tools, and information are thorough and correct and
  all information is free of errors. For example, Topic 6, the *Interactions in Ecosystems* Topic
  Wrap-Up contains an assessment with 10 questions about food webs and human interaction
  with ecosystems. The online exams are free of errors, scientifically accurate, and avoid bias.
  Student results are immediately released and are also free of errors.
- The materials contain formative assessments that are scientifically accurate, avoid bias, and are free from errors, as evidenced in the Engage Exit Ticket for Topic 3, Energy, Experience 1, Energy Changes. For this activity, students identify another electronic device they have encountered in daily life and write or draw a description of how energy changes form in the device. This unit's Explore Exit Ticket directs students to write or draw in response to the following prompt: "Think about an energy transformation in your daily life and describe how energy changes form in your example." During the Evaluate portion of the Topic, students complete the Revisit Anchoring

Phenomenon Activity by composing a response to answer the following question, "How is light produced in light-up shoes?"

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

- The assessment tools use clear pictures and graphics that are developmentally appropriate, as evidenced in Topic 6, Interactions in Ecosystems, Experience 3, Human Impact on Ecosystems Quiz, where question 2 provides a picture of a land-bridge made by humans. Another example is found in Topic 6, Interactions in Ecosystems, Experience 2, Energy in Ecosystems, which includes a picture of a food web with various animals, such as a squirrel. Question 2 of the editable formative assessment for Topic 2, Force and Motion, Experience 1, Patterns of Motion, includes a picture of a person moving a box up an incline. Students choose which statement is true as the person starts moving the box up the ramp. The graphics and pictures used on assessments are grade-level appropriate.
- Topic tests include pictures and graphics that are developmentally appropriate. For example, in
  the summative test provided for Topic 5, *Patterns on Earth*, there is a graphic of the symbols for
  recycling. Likewise, question 1 of the summative assessment for Topic 7, *Organisms*, provides a
  clear picture of a marsh ecosystem to support a question about the structure and function of a
  body part that would help an animal survive in a pond. Also, the summative assessment for
  Topic 1, *Matter*, contains simple tables to display data on thermal conductivity. All assessment
  pictures and graphics are grade-level appropriate and clear.

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

- Materials provide guidance to ensure consistent and accurate administration of assessment tools, as evidenced in the grading rubric located in the Assessment tool for the open-ended responses. Topic 3, Energy Short Constructed Response assessment poses the following question: "A light bulb is used to brighten a dark room. Light bulbs work because energy changes from one form to another. Describe two energy transformations that take place in a light bulb." The scoring rubric states the following information: "1 pt-Student identifies that electrical energy is transformed into light energy, and 1 pt-Student identifies that electrical energy is transformed into thermal energy."
- Materials provide guidance to ensure consistent and accurate administration of assessment tools, as evidenced by the automatic grading ability of the materials for non-open-ended assessments such as quizzes and unit tests. The materials include detailed information that supports the teacher's understanding of assessment tools and their scoring procedures. All Experience Quizzes include answer keys with sample student responses. For example, in Topic 3, Energy, Experience 1, Energy Changes Quiz, a sample student response is provided for the short constructed response. A rubric is also provided for teacher guidance.
- Materials provide guidance to ensure consistent and accurate administration of assessment tools. Topic 1, Matter, Experience 3, Mixtures and Solutions, provides guidance in the Evaluate section of the planner, which shares how long the assessment should be given, provides a 15minute timer image, and information that the test is editable and/or printable.

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

- Materials include limited guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals. The materials contain an editable version of the test so teachers can tailor it to their students' needs. For example, Topic 7, Organisms, contains an editable Wrap-Up Topic Test. A Topic Test Remediation document is provided in the Teacher eText for students who need remediation based on their summative test results.
- Materials include editable quizzes, presentations, and assignments so that teachers can adjust
  the test for students with accommodations, but guidance is not provided for suggestions on
  how to offer accommodations for assessment tools. Materials provide a partial text-to-speech
  feature on the web-based assessment platform, allowing students to hover over the text using a
  speech symbol cursor and convert the text to be read aloud. This feature currently works for
  only the test directions. It does not appear to read the questions and answer choices during the
  assessment.
- Materials include limited guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals. For example, the Evaluate section of Topic 6, Interactions in Ecosystems, Experience 3, Human Impact on Ecosystems, provides accommodations such as allowing intermediate-level English Language Learners (ELLs) to complete fill-in-the-blank statements and advanced students to choose a human activity and describe its impact on the ecosystem.
- The materials include an Assessment Accommodations Guide that provides teachers with guidance to adjust assessments as needed for students' learning goals. For example, the materials offer Topic tests that teachers can edit to reduce the number of questions asked while still holding true to content objective coverage for students who require accommodations.

#### **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	М
	students who have not yet achieved grade-level mastery.	
2	Materials provide enrichment activities for all levels of learners.	М
3	Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.	М

#### Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

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

Evidence includes but is not limited to:

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

- Materials recommended targeted instruction to develop precursor skills necessary for students
  to access grade-level content, such as additional lessons for students who do not master skills
  on Topic assessments. Materials include recommendations to scaffold learning for students
  within each topic.
- Materials provide teacher guidance and scripted questions for teachers to scaffold instruction and activities to introduce, scaffold, and develop student learning and understanding of science concepts. For example, in Topic 6, Interactions in Ecosystems, Experience 2, Energy in Ecosystems, the materials guide the teacher to model how to connect the cards with string. It also provides the teacher with guiding questions, including, "How might changes in water quality affect the health of animals that live in a coastal ecosystem?" and "How could you model the flow of energy in a coastal ecosystem?" This scaffolded instructional scripting supports all learners, and there is additional teacher support that provides targeted instruction to scaffold learning for students who have not yet achieved grade-level mastery.

#### Materials provide enrichment activities for all levels of learners.

 Materials include STEAM activities that can be used for enrichment. For example, during the STEAM Station activity in Topic 4, Earth and Space, Experience 2, Patterns and Shadows, students work with a partner to construct a model of Earth's rotation to describe Earth's daynight and sunrise/sunset patterns.

- A Challenge Activity is located within the Differentiated Instruction section of lessons. For
  example, Topic 4, Earth and Space, Experience 1, Earth's Rotation, includes a Challenge for
  students to use their models to demonstrate how the Earth moves as it orbits the Sun.
- The Elaborate section of Experiences contains enrichment activities such as game-based concept reviews, problem-solving exercises, and simulations to encourage further exploration of science concepts. For example, Topic 7, Organisms, Experience 2, Animal Behavior, provides a Legends of Learning online game where students explore how adaptations increase an animal's chance of survival.
- For additional enrichment activities, each Topic includes a list of suggested readings to
  encourage all students to make connections and learn about the Topic concepts and standards.
  Each Topic Launch page contains a list of Topic Readers with Lexile levels. For example, in the
  Launch section of Topic 1, Matter, the following reader titles are included: Properties of Matter
  (Lexile: 770L); Matter Can Change (Lexile: 910L); and Changes in Matter (Lexile: 950L). Students
  are encouraged to select books that interest them at any point before, during, or at the end of
  the Topic.

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

- The materials provide explicit scaffolds and guidance for just-in-time learning acceleration for all students. Exit tickets are provided at the end of each lesson. For example, Topic 3, *Energy*, Experience 2, *Electrical Energy and Circuits*, includes an exit ticket where students draw a diagram of a circuit and label the parts. Although not explicitly stated, the teacher can use the students' exit ticket responses to assess instruction and determine whether to stop or continue with just-in-time acceleration. The materials guide the teacher to "Collect the exit tickets and refer back to them throughout the Experience."
- The lessons include recommendations for just-in-time scaffolds to develop productive
  perseverance in learning at the moment. For example, materials include prompts and cues to
  use with learners when they are stuck on a particular task or unsure how to proceed. In the
  Explain portion of Topic 3, Energy, Experience 3, Light, the Key Ideas Presentation includes a
  notes section with useful tips and student questions to assist with teaching and accessing key
  ideas
- The materials include teacher guidance with additional student support, prompts, and questioning. For example, in Topic 2, Force and Motion, Experience 2, Forces, students are guided through how to set up the STEAM station to design a balloon rocket. Teacher reminders, student expectations, misconceptions, vocabulary support, and guiding questions are provided to assist all students in real-time learning and to help students accelerate through the lesson.

#### **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	М
		engage students in the mastery of the content.	141
	2	Materials consistently support flexible grouping (e.g., whole group, small group, partners,	М
	_	one-on-one).	IVI
		Materials consistently support multiple types of practices (e.g., modeled, guided,	
	3	collaborative, independent) and provide guidance and structures to achieve effective	М
		implementation.	
		Materials represent a diversity of communities in the images and information about people	
	4	and places.	M
- 1			

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

• Included within the materials is an Experience Science Research-Based Pedagogy document that describes and explains the 5E model and its benefits. "The 5E Model provides a structure for designing science lessons that engage students in the learning process" and includes student-centered activities to "increase engagement and motivation." Each Topic contains a variety of developmentally appropriate instructional approaches. For example, Topic 7, Organisms, Experience 2, Animal Behavior, begins with an Everyday Phenomenon video of why fish pack together, then progresses through a Hands-On Activity station where students create a model and collect data about fish that form groups and fish that don't, and analyze the effect on survival. This activity is followed by a virtual lab, as well as a Literary Station with reading and vocabulary activity cards. Students also engage with a Key Ideas Presentation and video and end the lesson with a Legends of Learning game about how adaptations increase the chance of survival.

- The materials engage students in the mastery of the content through a variety of developmentally appropriate instructional approaches. Each lesson opens with an everyday phenomenon to prompt student engagement and curiosity and offer a real-world connection to Texas occurrences. For example, Topic 4, Earth and Space, Experience 2, Patterns and Shadows, engages students with an Everyday Phenomenon demonstration to activate student thinking about patterns and shadows in Texas.
- The materials include a Key Ideas Presentation for each lesson that can be used in whole group settings. Once downloaded, the presentation is editable and includes teacher support with guiding instructions and questions, as well as ideas to demonstrate the material in different ways through Try It Out! sections or Key Ideas Activity sections. For example, Experience 4, Earth and Space, Experience 2, Patterns and Shadows, contains a slide presentation with notes on vocabulary, question and discussion guidance, and activities to explore patterns and shadows. The slides include notes on how to build understanding using the previous slides. Small group and whole group discussions are embedded throughout the presentations.

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

- The materials engage students in a variety of flexible grouping opportunities, from whole-class discussions to cooperative learning in small groups and tasks designed for individuals, such as quizzes and tests. For example, Topic 3, *Energy*, Experience 1, *Energy Changes*, includes a whole group Everyday Phenomenon video where students determine what makes an electric scooter move, whereas the Literacy Station activity has students work with partners to explore the following question: "How does energy change forms?" Finally, students will individually participate in a Physics Education (PhET) simulation to design a system with energy sources.
- The materials include a breakdown of which components can be incorporated into each lesson.
  Icons are used to designate if the activity is appropriate for whole groups, small groups, or
  individuals. For example, in Topic 1, *Matter*, activities such as the Everyday Phenomenon
  demonstrations, stations, and videos are recommended for whole groups or small groups.
  Quizzes, exit tickets, Legends of Learning vocabulary games, and literacy stations are advised for
  use with individuals.
- The materials support flexible grouping throughout the various 5E lesson components of each Experience. For example, the Connect to Literacy section includes titles that can be used with a whole group as a read-aloud, or the titles can be assigned for individual use or with small groups to introduce or close a Topic. The materials include either a Hands-On station or STEAM station that can be completed in small groups, a Read About It section that can be completed as an individual, as well as the tests and quizzes that can be completed as an individual. For example, in Topic 6, Interactions in Ecosystems, Experience 3, Human Impact on Ecosystems, the Hands-On Station provides students an opportunity to work in small groups and use a model to investigate how habitat fragmentation affects an organism's ability to survive.

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

- The materials consistently support multiple types of practices and provide guidance and structure to achieve effective implementation throughout various parts of the Topics. The Hands-On Activity station includes guided, collaborative, and independent student practices. For example, in Topic 4, Earth and Space, Experience 1, Earth's Rotation, the Hands-On Station has a Guide Student Planning section with teacher instructions and guided questions such as, How can we model day and night on Earth? There is a Guided Inquiry Procedure with steps to model the activity, such as, "Remind students that it is important that they carefully record their observations for each part of the activity so they can draw conclusions at the end. Encourage students to think about the advantages and limitations of modeling the Sun-Earth system before they begin. Ask: What do you want to learn about the Sun-Earth system from this investigation? What are the advantages of using a model to study the Sun-Earth system? How is the model of the Sun-Earthsystem different from the actual Sun and Earth?" Students then complete the Hands-On station in small groups with independent work included at the end of the activity.
- The materials provide teacher guidance and structures to achieve effective implementation of multiple types of practices. For example, the Before the Stations section of each lesson states a clear purpose and learning goals for the whole group and independent practice activities. The purpose and learning goals are provided for the STEAM station in which students work collaboratively and for the Literacy Station in which students work independently. In Topic 5, Patterns on Earth, Experience 3, Natural Resources, students work in small groups during the Hands-On Activity to model the processes that led to the development of sedimentary rock and coal. In the literacy station, students will work independently to generate questions about the formation of sedimentary rocks and fossil fuels.
- The materials follow the 5E model and include suggestions for teacher modeling and student collaboration for the whole group and with partners. Teacher support is provided for the implementation of the practices. For example, during the Engage portion of Topic 1, *Matter*, Experience 2, *Solids*, *Liquids*, *and Gases*, students explore the question, "How does the air in a balloon change when it gets colder?" Teacher scripting provides student questions and answers, what to look for while observing students at work, and where to refer students to help prompt their thinking. For example, the teacher materials for the Engage portion of this lesson state, "Show the Everyday Phenomenon Video. Ask Is the air inside the balloon a solid, liquid, or gas? How did the balloon change in the video? Why do you think that happened? Write or draw your observations. Sample answer: The air inside the balloon is a gas. The balloon shrank when it got cold. It got bigger when it warmed up. Something happened to the air inside the balloon."

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

• The materials represent diversity in their images and information of both people and places. Topic 1, *Matter*, Experience 2, *Solids*, *Liquids*, *and Gases*, includes a phenomenon video about how the air in a balloon changes when it gets colder. This video makes a connection to Texas by sharing information about the Balloon Capital of Texas. Diversity of people and places is also evident in the Topic Readers. For example, in Topic 1, *Matter*, Experience 2, *Solids*, *Liquids*, *and Gases*, the Read About It section contains images of diverse habitats from deserts to glaciers. Several Topics also include a Take It Local section, which connects the content to the local community. For example, this lesson contains a *Meet the Expert* idea, which suggests inviting a materials engineer from your local area to speak with the class about the development and

- testing of materials. The scripting suggests students prepare questions about how the physical properties of matter are related to a materials engineer's work.
- Materials represent diverse communities using images and information that are respectful and inclusive. For example, the Hands-On Activity Station card images in Topic 5, Patterns on Earth, Experience 3, Natural Resources, Hands-On Activity station card portray a diverse group of students. Throughout the materials, real-world examples and connections share a diversity of communities and places, including rural, urban, and suburban communities, cities, states, and countries around the world. In Topic 6, Interactions in an Ecosystem, the Anchoring Phenomenon contains a Texas connection to the Robert L.B. Tobin land bridge located in San Antonio.
- The images used include a diverse group of people. Images are displayed throughout the materials and the student resource stations. For example, two students of different ethnicity and gender are portrayed on the Hands-On Station Activity card for Topic 7, Organisms, Experience 1, Structures and Functions. Teachers of different ethnicities are also displayed throughout the Experiences. Even the Getting Started section titled, Authors, Contributors, and Partners, showcases diverse people based on ethnicity, age, and educational backgrounds.

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include guidance for linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. All Topics include an ELPS Targeted Support section with accommodations for students who are learning English. For example, Topic 3, Energy, Experience 1, Energy Changes, guides the teacher to have students write or draw a description of how energy changes form. ELPS accommodations for each level include: beginner "Ask students yes/no questions about the video;" intermediate "Have students collaborate to draw a diagram;" advanced "Have student pairs use vocabulary terms in a complete sentence to describe actions they observed;" and advanced-high "Have student partners take turns asking questions about their observations."
- The materials include visuals to help students understand and make sense of the content. Each Topic begins with an Anchoring Phenomenon that includes a photo and a video. Topic 3, Energy, opens with an Anchoring Phenomenon video about what happens to make the shoes light up. Vocabulary cards display pictures with definitions, and the station cards for Literacy, STEAM, and Hands-On activities include pictures with steps. Also, there is a Key Ideas Presentation with a video located in the Explain section of each Topic.
- The materials include suggestions for linguistic accommodations in each Experience within a Topic. For example, in Topic 2, Force and Motion, Experience 2, Forces, differentiated ELPS supports are specifically provided for the Engage, Explore, and Evaluate lesson sections, and it includes scaffolding for the beginner level through the advanced-high level. For example, in the Explore portion of the lesson, the ELPS support guides the teacher to have students connect

information and images in the text to enhance and confirm their understanding of concepts. ELPS accommodations for each level include: beginner - "Have student pairs match the words gravity, force, Earth, outer space, and astronaut with the images illustrating each one;" intermediate - "Have students work in pairs to discuss how the images are related to the text;" advanced - "Have student pairs take turns identifying details in the text that describe how gravity affects astronauts differently on Earth and in space;" and advanced-high - "Have students use context clues from the text to explain why astronauts in space seem to float, and ask each other what they would investigate if they went into space."

• Materials suggest concrete experiences and explicit modeling as linguistic accommodations when delivering direct instruction. For example, in Topic 2, *Force and Motion*, the ELPS Targeted Support Guide suggests the teacher model the use of vocabulary terms while mixing salt with water and again when mixing flour with water.

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

- The materials encourage strategic use of the students' first language, as evident in Topic 5, Patterns on Earth, Experience 1, Water Cycle and Weather. The teacher's scripting states, "Draw a diagram of the water cycle on the board and label it. Have students use words they already know along with the picture to explain the meaning of the words condensation, evaporation, and precipitation." The materials also have a Spanish version of the resource to assist with two-way dual-language programs.
- In the materials, a *Topic School to Home Letter* is included for each Topic. This editable document can be translated into the student's home language to engage the parents in their child's learning. For example, the Launch section of Topic 1, *Matter*, contains a *Topic 1 School to Home Letter* that explains the unit objectives along with ideas to support learning at home.
- The materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English with the Anchor Chart Activity. For example, in the launch section of Topic 7, *Organisms*, the Anchor Chart Activity contains an editable and printable page for students to label structures and draw and describe instinctive and learned behaviors. It also guides the teacher to direct all students to write notes in their first language.
- Getting Started materials also include an ELPS correlation guide that provides teacher guidance
  on how to help students master the ELPS objectives. Additionally, this document helps locate
  targeted ELPS within the resource.

#### **Indicator 7.4**

Materials provide guidance on fostering connections between home and school.

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

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials provide information to be shared with students and caregivers about the design of the program. A provided *School-to-Home Letter* illustrates the sequence of experiences followed in each topic. This letter can be sent home to parents and guardians to help explain what will be taught in the program and how to keep students engaged in learning at home. For example, the Topic 3, *Energy, School-to-Home Letter* explains that in Experience 1, *Energy Changes*, students investigate and describe energy transformations in systems. Next, in Experience 2, *Electrical Energy and Circuits*, students explore electrical energy in the context of circuits and energy transformation. Finally, in Experience 3, *Light*, students explore and explain how light travels.
- The materials provide information to be shared with students and caregivers about the design of
  the program as evidenced in the Getting Started with Texas Experience/Navigational SupportRealize Parent Support tab with live support links that contains support for parents using Realize
  can be found in the following locations:
  - o Realize Parent Letter
  - Realize Parent Guide
  - Realize Learner Tips for Parents
  - Realize Parents Corner
  - The Getting Started materials also contain Engage in Dynamic Experiences that a teacher can use to explain the program's 5E design to students and caregivers

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

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

#### Materials include information to guide teacher communications with caregivers.

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

caregivers in the sections entitled, *Take It Local* and *Collaborate with the Community*. For example, Topic 3, *Energy*, contains two *Take It Local* ideas, such as, "Have students form small groups to demonstrate the transfer of motion through collisions," and "Have students look for power lines on their way to and from school and ask them to describe what the power lines look like and share where they saw them and why the wires are necessary for the flow of energy." These activities are designed to involve caregivers and the community, yet these materials do not *guide* teacher communications with caregivers.

#### **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.	М
2	Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts.	М
3	Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.	М

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

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

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

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

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

- Evidence shows review and practice are provided within the materials throughout the year for science and engineering TEKS and recurring themes and concepts TEKS. The station activities contain embedded teacher support to help students connect to recurring themes and scientific practices. Materials include student opportunities to revisit SEP TEKS and RTC TEKS throughout the year. For example, the theme of cause and effect is revisited in Topic 1, Experience 1, and additionally in Topic 2, Experience 2.
- For each topic in the Teacher's Guide, an explicit explanation of previously learned content is reviewed and spiraled into the current topic. For example, in the Grade 5 Teacher's Guide: Topic 4, Earth and Space Overview: Preview the Topic section contains supporting content from Topic 2, Force and Motion. Students apply what they learned in Topic 2, Force and Motion, about patterns of motion to what they about in Topic 4 about the Earth's motion in space. In this activity, students review and practice relevant knowledge and skills from previous topics. The grade 5, Topic 4: Earth and Space Spiraling Activity include review and practice for Topic 1: Matter, Topic 2: Forces and Motion, and Topic 3: Energy.

#### **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.	М
2	Materials include standards correlations, including cross-content standards, that explain the standards within the context of the grade level.	М
3	Materials include a comprehensive list of all equipment and supplies needed to support instructional activities.	М
4	Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.	М

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include a Teacher's Guide, which contains guidance for each part of an experience (lesson) with scripting throughout. For example, Topic (unit) 4: Earth and Space, Experience 1, Earth's Rotation, supports teacher guidance with question stems for direct instruction, such as, "Why does the Sun disappear every night?" Examples of additional teacher guidance include options to differentiate instruction, along with facilitator directions to assist the English Language Learner (ELL), such as, "Model using words and actions to demonstrate rotation and axis; then have students demonstrate the same thing."
- Embedded technology is apparent within the materials, which includes a digital resource page titled, *Getting Started with Texas Experience Science*. Furthermore, the materials contain links to embedded technology in the Teacher's Guide. Each Topic Launch provides a Teacher Overview that allows menu expansion for each component, provides teacher guidance on the purpose of each component, and a brief overview of student participation. Available videos offer support for general instruction and student enhancement activities.

- Enrichment activities are included within all topics. Teachers can quickly locate Elaboration
  activities indicated by a blue plus sign. For example, Topic 2, Experience 1, shares a Physics
  Education Technology (PhET) simulation in which students explore forces and motion.
  Elaboration activities do not include instructional scaffolding for our high-performing student
  learners.
- The Texas Experience Science Instructional Research-based Pedagogy resource provides detailed teacher guidance on the structures and benefits of the 5E model framework in the science classroom. Additional teacher support with the 5E instructional model is evident within each topic. For example, Topic 2, Experience 1, guides the facilitator through the Explore portion of the 5E model by providing the following scripted station instructions: "What do you think would happen if you roll a marble at another marble gently?"
- Evidence of scaffolding exists in the materials to include extension opportunities and support for ELL students. The Teacher's Guide provides guidance for differentiated instruction. For example, in Topic 7, Experience 1, teacher instruction explains how to reinforce understanding of the investigation. The text states, "Model collecting data by counting out loud the number of beads gathered and writing the number in the correct column." A Challenge section guides the teacher to share the following statement with students ready for a challenge: "Describe what everyday materials they could use to model the mouth structure of a nectar eater." Scaffolds with targeted ELPS Reading supports are shared in Topic 7, Experience 2, Explore Literacy Station.

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

- The Topic Planner contains the TEKS covered in each experience. Standard correlations to science, English Language Arts and Reading (ELAR), social studies, and math are present throughout various units. For example, Topic 1 includes cross-content standards for ELAR.
- In addition to cross-content standards correlations, the materials include a TEKS Progression section in the Topic Overview, which provides a look back to correlated TEKS from the previous grade level to understand, "How does this topic connect to what students learned earlier?"
   Another section labeled In This Topic shows the TEKS covered within the topic, and a section titled A Look Ahead contains correlated TEKS from the next grade level, which answers the question, "How does this topic connect to what students will learn later?"

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

The Master Materials list in the Additional Program Resources tab contains a downloadable zip
file with detailed information. In each Topic Overview and each experience, the materials are
listed in the left-hand column for each lesson component. For example, the Topic 6 Launch
section lists resources in the left margin to support this experience: Anchoring Phenomenon
Video, Anchoring Phenomenon Activity, Anchor Chart Activity, Vocabulary Cards, Vocabulary
Cards Activity, and Topic Readers. In addition, students are informed of needed materials.

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

- The materials contain a Hands-On Activity Safety Guide within the Additional Program Resources tab, which reviews safety icons and procedures for the hands-on activities found within the program. The lab safety guidelines share information about the lab dress code, sharp objects, and a lab safety equipment review, including a student lab safety contract. Topics with a science, technology, engineering, art, and math (STEAM) activity incorporate a safety tip in the Teacher Guide Overview. For example, in Topic 2, Experience 1, teachers are reminded to have students wear gloves and safety goggles when using paint. Topic 5, Experience 2, includes the safety tip, "Remind students to wipe up spills immediately to demonstrate safe practices during investigations as outlined in the Texas Education Agency-approved safety standards."
- Additionally, the materials provide students with a Student Activity Companion, which shares safety practice guidance and includes the grade-appropriate use of safety equipment. Safety guidance is embedded in student materials. For example, Experiences with Explore stations include student Station Activity Cards displaying caution with materials, such as, "Be careful with scissors."

#### **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	М
	required time for lessons and activities.	
2	Materials guide strategic implementation without disrupting the sequence of content that	М
	must be taught in a specific order following a developmental progression.	
3	Materials designated for the course are flexible and can be completed in one school year.	М

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials provide multiple scheduling considerations and include valuable guidance and recommendations on required time for lessons and activities. Within the online materials, the Designed for Texas Course Planner and Pacing Guide shares a pacing overview for the course and lists average durations in days per topic (unit). The two included pacing options are titled Fast Track and Got More Time. For example, Topic 4, Earth and Space, suggests seven days for Fast Track pacing and ten days for Got More Time pacing.
- Recommended durations in minutes are listed in the Topic Planners, the Experience At-A-Glance pages, and the instructional pages of the Teacher's Guide. An editable Topic Planner for each experience within a topic permits the instructor to customize scheduling considerations. Each Topic Launch includes a Topic Planner with the suggested number of instructional days and designated minutes for each section of the 5E model framework. For example, in Topic 2, Force and Motion, Experience 1, Patterns of Motion, the suggested lesson time frame is five days or 150 minutes, and the recommended time for the Explain/Elaborate portion of the presentation of the key ideas titled, Patterns of Motion is fifteen minutes.

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

The scope and sequence of program materials allow for topic (unit) implementation in a
developmentally appropriate progression. The Topic Overview section includes implementation
plans that start with a recall of prior knowledge and progress to building upon this knowledge as
students participate and engage throughout the lesson cycle. Lessons provide teacher guidance

- for English Language Proficiency Skills (ELPS) learners of varied stages to apply understanding at home, in their "real world," and to think like a scientist."
- The materials delineate the order of topics to ensure students learn about precursor concepts first. For example, in Topic 1, Experience 3, students learn about the properties of substances in a mixture before using the properties of different liquids to create a paint-like material for drawing.

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

- The materials are flexible and can be completed in one school year. The Designed for Texas
   Course Planner and Pacing Guide outlines a year-long progression of all Texas Essential
   Knowledge and Skills (TEKS) to be taught in order by topic (unit) and provides instructional
   pacing flexibility. An Editable Planner in the Launch section of each topic (unit) allows teachers
   flexibility to adjust suggested instructional times provided within each Topic Planner.
- Also, the materials include two suggested pacing options which provide the teacher with Fast Track activities, indicated by a green check mark, and Got More Time activities, marked with a blue plus sign. These options allow the teacher to adjust the time spent on each topic without disrupting the content sequence that must be taught in a specific order. For example, in the Designed for Texas Course Planner and Pacing Guide, seven topics are paced in sequential order over one school year. In Topic 5, the experiences provide flexible pacing options and can be completed in thirteen days using the Fast Track option or in eighteen days using the Got More Time option.

#### **Indicator 9.1**

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

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

#### **Not Scored**

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

Materials include an appropriate amount of white space and a design that supports student learning. Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. Materials include digital components that are free from technical errors.

Evidence includes but is not limited to:

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

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

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

- The materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting, as evidenced in Topic 1, *Matter*, Experience 1, *Properties of Matter*, where the paragraphs are grade-level appropriate in length, and the pictures provide suitable visual content. The photos and videos used in the Topic Anchoring Phenomenon Activities are grade-level appropriate and support student learning. For example, Topic 7, *Organisms* Anchoring Phenomenon shares the following question with a video: "How does crawling help baby sea turtles in Texas?" This engaging phenomenon is an age-appropriate curiosity for fifth-grade students.
- The Read About It materials in each topic contain clear and authentic images and graphics to define and support the new words students encounter during lessons. For example, in Topic 4, Earth and Space, Experience 2, Patterns and Shadows, the materials include magnified photos that clearly show the sun's apparent motion across the sky and real-world applications such as sundials. Another example of authentic images and graphics is found in Topic 5, Patterns on Earth, where The Read About It materials incorporate diagrams that distinctly show the steps to the formation of fossil fuels. These graphics indicate a perceptible progression from one stage to the next.
- The visuals are age-appropriate and well-designed to accompany the lessons. There are full-color videos and photographs when appropriate, and they do not distract from the learning task. The Hands-On Station Cards include relatable student graphics, as there is a photo of a child of similar age on one of the cards shown completing the station activity.

#### Materials include digital components that are free of technical errors.

- The materials include digital components that are free of technical errors, as evident in Topic 7, Organisms, Topic Reader, Plants and Animals. This reader is free of typographic errors. The STEAM Station Activity titled, Design a Balloon Rocket, in Topic 2, Force and Motion, Experience 2, Forces, contains no typographic errors. The Teacher's Guide eText is easy to access and read with no technical errors. A digital vocabulary game in Topic 3, Energy, is also free of technical errors.
- Digital components are easily accessible and readable. The Key Ideas Presentations open effortlessly in Google, or they can be downloaded. Furthermore, digital components such as vocabulary cards open smoothly and are downloadable and editable.
- The materials contain a Savaas Parent Corner website that provides information to share with caregivers about the program design. The materials also include a Parent User Guide and How-To videos for both students and parents. These materials are free of spelling, grammar, and punctuation errors and contain accurate science content and information.

#### **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	Yes
	engagement.	163
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
	science and engineering practices, recurring themes and concepts, and grade-level content.	
3	Materials integrate digital technology that provides opportunities for teachers and/or	Yes
3	students to collaborate.	
4	Materials integrate digital technology that is compatible with a variety of learning	Yes
4	management systems.	162

#### **Not Scored**

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

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

Evidence includes but is not limited to:

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

- The materials integrate digital technology and tools that support student learning and engagement. There are two types of games with which students can engage: a Vocabulary Game that allows students to practice their topic-level vocabulary and a Legends of Learning Game that focuses on the topic content. For example, when playing the Legends of Learning Game found in Topic 3, Energy, Experience 3, Light, students clear paths to allow light energy to reach eggs ready to hatch, snowmen ready to melt, and plants ready to grow.
- Virtual labs engage students with content as well. For example, Topic 4, Earth and Space,
   Experience 2, Patterns and Shadows, includes a virtual lab where students apply and practice
   unit concepts by exploring an outdoor school environment to observe the patterns of shadows.
   Another example includes a virtual lab in Topic 7, Organisms, Experience 2, Animal Behavior,
   where students explore traits and survival.
- Online assessments in the Topic Wrap-up are provided to support student learning and
  engagement. The online assessments include ten questions with pictures and STAAR 2.0
  interactive questions. After the assessment, online feedback and remediation are provided
  through an automatic program that shows questions mastered as well as missed, and it gives
  results for objectives successfully completed and objectives for which more practice is needed.

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

- The materials integrate digital technology in ways that support student engagement with the science and engineering practices (SEPs), recurring themes and concepts (RTCs), and grade-level content as seen in the Grade Level Table of Contents, SEPs, and RTCs Preview that contains an SEPs and RTCs Presentation. In Topic 6, Interactions in Ecosystems, Experience 2, Energy in Ecosystems, students plan and conduct an investigation and use models to analyze data as they play the Legends of Learning Game, Biosphere Architect. This game allows students to apply their new knowledge about interactions in ecosystems as they explore the interactions among a food web.
- Student virtual activities are included in every unit. The materials include virtual labs that allow students to participate in online interactive activities, record observations and explanations, and answer questions in an interactive online notebook. For example, Topic 5, *Patterns on Earth*, Experience 4, *Conservation*, contains student virtual activities, including a virtual lab titled, *Electronics and Our Earth*. In this activity, students explore environmental impact by designing a phone case. Students record each lab activity in their notebooks, and they can take screenshots to include in their notebooks.
- Digital technology is integrated into each topic's Key Ideas Presentation, which includes a virtual
  presentation and video to reiterate content. The presentation facilitates student connections
  between the science content they learned and the science practices they used. The engaging
  video provides additional examples and meaningful explanations for students. For example, the
  Key Ideas Presentation and Video in Topic 1, Matter, Experience 1 Properties of Matter, focus on
  the properties of matter.

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

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

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

Materials integrate digital technology that is compatible with a variety of learning management systems (LMS), including *Google Classroom*, *ClassLink*, *Power School*, *Google Drive*, and *Canvas*.
 A Realize Canvas Integration document is included that provides information on the integration and how to use it. The Digital User's Guide within the materials lists the available digital tools by category and includes: 1) Rostering Tools, 2) Student Information System, 3) Learning Management System, and 4) Productivity Tools.

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

#### **Indicator 9.3**

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

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

#### **Not Scored**

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

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

Evidence includes but is not limited to:

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

- Digital technology and online components are developmentally appropriate for the grade level
  and align with the scope and approach to science knowledge and skills progression. All printed
  documents are available through digital access and aligned to the scope and sequence. These
  materials include reading text passages, assignments, assessments, and visual materials such as
  vocabulary cards.
- The Topic Readers in the materials align with the scope of the content and include developmentally appropriate pictures and text. The Topic Readers are tagged with Lexile reading levels and progress as the students advance grade levels. Topic 2, Force and Motion, references a Topic Reader titled, How do Objects move? which covers how objects move and how machines use less energy to do the same amount of work. Another example is Unit 2, Force and Motion, Topic Reader titled, Forces and Motion, which shows a boy on the cover with which students can relate and appropriate pictures to match the content, such as a dog playing with a ball and someone skydiving. This Topic Reader covers motion and the ways that contact and non-contact forces affect it.
- Topic Overviews include digital and online components appropriate for fifth grade and aligned
  to the scope and sequence. Each Topic Overview provides teacher videos with instructional
  guidance. For example, the Topic 3, Energy, Overview contains valuable information organized
  into the following sections: Preview the Topic, Teacher Background, Teacher Prep, Common

*Misconceptions*, and *TEKS Progression* with vertical alignment of addressed TEKS in fourth, fifth, and sixth grades.

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

- Materials provide teacher guidance for the use of embedded technology to support and enhance student learning. The Digital User Guide provides information on how to use the program and its embedded technology for student learning, including guidance on navigating materials, assigning content, operating class tools, scoring student work, and integration support. There is also a My Savvas Training: Google Classroom document that provides guidance for program implementation with Google Classroom so that teachers can work in Savvas Realize while students can remain in Google Classroom. The provided On-Demand Training is broken into the following categories: Getting Started, Tools for Teachers, including topics such as Google Classroom tutorials, Google Classroom Online Help, Google Docs, and Tools for Administrators.
- The materials provide teacher guidance for which lesson sections to use technology with students. The materials outline these recommendations in the Topic Planner Overview section and provide clear instructions and tutorials within the teacher platform through the Virtual Program Activation, which explains how to use the embedded technology. The At-A-Glance Topic Planner for Topic 7, *Organisms*, shares a detailed overview of the unit and the Experiences within that Topic.
- The Getting Started section provides guidance for embedded tools that support and enhance student learning. For example, the Digital User Guide within the Navigational tab includes 12 pages of support for assigning content, using tools, scoring work, guiding student experiences, available integrations, and additional resources.

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

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

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