

# Savvas Learning Texas Experience Science Grade 7

## Savvas Learning Texas Experience Science Grade 7 Executive Summary

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

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

### Section 2. Instructional Anchor

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

### Section 3. Knowledge Coherence

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

### Section 4. Productive Struggle

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

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

- The materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.
- The materials provide 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.

# Savvas Learning Texas Experience Science Grade 7

- 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.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 2.1

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

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

### Meets | Score 4/4

The materials met 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 the 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 to develop grade-level appropriate scientific and engineering practices, as outlined in the TEKS. For example, at the start of Topic 3, *Matter and Solutions*, the anchoring phenomenon, “What is happening to the bath bomb?” sets the stage for students to connect content standards to Science and Engineering Practices (SEPs) throughout the topic. The materials provide multiple opportunities to practice grade-level appropriate science and engineering practices as outlined in the TEKS.
- The materials provide multiple opportunities to practice and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS. For example, materials include opportunities for students to develop evidence-based explanations based on observations or investigations. In Topic 2, Experience 1, the Explore Hands-On Lab titled “How

## Savvas Learning Texas Experience Science Grade 7

do temperature and kinetic energy affect diffusion?” asks students to make predictions, plan an investigation, collect data, and record data. Students then develop an evidence-based explanation about how temperature and kinetic energy affect diffusion, supported by collecting evidence.

- The materials provide multiple opportunities to show mastery of grade-level appropriate scientific and engineering practices. For example, materials include opportunities for students to design and conduct grade-appropriate investigations, collect and analyze data, and develop and test hypotheses. In Topic 3, Experience 3, the Explore Hands-On Lab titled “What factors affect rate of dissolution?” provides students with a set of criteria to plan and conduct experimental investigations to test the rate of dissolution.

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

- The materials identify overarching concepts using recurring themes and show how they connect within the materials. For example, the materials in Topic 5, Experience 1, guide students to construct maps and apply patterns to understand the evidence of plate tectonics, while in Topic 11, Experience 1, students develop and use models to analyze and explain how energy flows and matter cycles through food web systems.
- The materials provide multiple opportunities to use recurring themes in making connections between and within overarching concepts. On p. xxxiii of the Teacher’s Guide, the TEKS Grade 7 Correlation lists the Recurring Themes and Concepts (RTC) and states where each RTC correlates to Science Content (SC) standards in the materials. For example, in Topic 2, Experience 3, *Thermal Energy and Equilibrium*, students identify cause-and-effect relationships to explain how thermal energy flows in a system. Students revisit this recurring theme in Topic 5, Experience 2, *Plate Tectonics and Earth’s Surfaces*, to explain cause-and-effect relationships between plate tectonics and changes to Earth’s surfaces.

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

- The materials strategically develop students’ content knowledge and skills appropriate for the concept and grade level as outlined in the TEKS. Grade 7 materials integrate SEPs and RTCs (themes) to build and connect knowledge to new contexts. For example, as students plan and conduct investigations across the year, materials provide support for increasing complexity in student-led inquiry and investigation, including guidance for teachers to revisit topics with students in order to review previous learning and revise thinking on topics. Materials include lessons that build on prior learning to develop students’ content knowledge and skills by reexamining previous learning. In Topic 1, *Force and Motion*, within the Topic Launch, the Vocabulary Builder activity builds on students’ previous learning of real-world applications of forces and provides teachers with scripted questions and suggestions to support the activation of prior knowledge and address possible misconceptions. While guiding student discussion at the end of Topic 5, Experience 3, materials direct the teacher to remind students of their previous classroom learning and experiences. Students refer back to the anchoring phenomenon that was introduced at the start of the lesson and adjust their thinking based on new information obtained during the lesson.
- The materials are systematically designed to develop and build student skills and content knowledge using phenomena appropriate to the grade level as outlined in the TEKS. For

## Savvas Learning Texas Experience Science Grade 7

example, the grade 7 materials include the Course Planner and Pacing Guide that explains how the topics and experiences are structured and provides an anchoring phenomenon for each topic, showing how the program systematically presents content and concepts for students to make connections across topics throughout the course. Within topics, each experience follows the research-based 5E model throughout the year to strengthen and develop inquiry skills, such as asking questions, planning investigations, and modeling. In grade 7, the first lesson within a topic on thermal energy begins with an introduction to temperature and kinetic energy to ensure that students understand the relationship between temperature and kinetic energy. Later within the topic, instruction builds to investigate the methods in which thermal energy is transferred and moves in predictable patterns.

- The materials support teachers in developing student content concepts and skills by giving them resources and cues at varying points in lessons and units throughout the grade level. For example, materials contain a Topic Overview for each topic (chapter) and lesson notes, located in the Teacher’s Guide within each experience that explain, describe, and make connections between the SEPs and the development of conceptual understanding.

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 include opportunities for students to ask questions and plan and conduct investigations. For example, in Topic 10, Experience 3, students plan and conduct a field investigation to classify organisms. After analyzing data, students generate questions and make predictions based on their observations. Materials give students sufficient opportunities to plan and conduct classroom and field investigations. For example, in Topic 6, students use scientific practices to plan and conduct simple investigations to explore the negative impacts of human activities on ocean systems. Later in Topic 6, students engage in problem-solving to propose a profitable overfishing solution for a commercial fisherman.
- The materials include sufficient opportunities for students to engage in problem-solving to make connections across disciplines and develop an understanding of science concepts. Throughout the Savvas Science 7 materials, students ask questions, plan and conduct investigations in order to answer questions and explain phenomena using appropriate tools and models. For example, Topic 2, *Thermal Energy*, launches the topic with an anchoring phenomena question using a Claim-Evidence-Reasoning (CER) protocol to scaffold prior knowledge. At the end of the Topic 2 Wrap-Up, students revisit the CER protocol and make adjustments to develop a final explanation of the topic’s anchoring phenomenon, connecting new and previous learning concepts.
- The materials provide repeated opportunities for students to use grade-level appropriate scientific and engineering practices across various contexts throughout the course. For example, the TEKS Grade 7 Correlation resource states the multiple opportunities throughout the course that scientific and engineering practices are integrated into topics and experiences. This includes multiple opportunities to ask questions, plan and conduct investigations to answer questions, and explain phenomena using appropriate tools and models. Students also have opportunities to identify problems and design solutions using appropriate tools and models.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 2.2

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

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

### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials use phenomena as a central anchor in each topic (chapter) to drive student learning across grade 7 content disciplines, including physical, earth and space, and life sciences. Students examine phenomena using science and engineering practices through the lens of recurring themes. Students develop content knowledge as they form explanations of the phenomena and solve engineering problems. For example, Topic 1, *Force and Motion*, launches the unit with the anchoring phenomena question, “How can you represent the motion of the cars?” and continues to spiral the question throughout the topic. Each experience (lesson) within the topic begins with an everyday phenomena question that is relevant to students, allowing them to tap into and expand on prior knowledge while completing activities within each experience.
- The materials embed thought-provoking phenomena and engineering problems that require nuanced and appropriate grade-level explanations. Materials provide opportunities for students to develop, evaluate, and revise their thinking as they figure out phenomena and define or solve problems. In grade 7, materials present opportunities for students to investigate phenomena and problems before, during, and after lessons as they construct, build, and develop their

## Savvas Learning Texas Experience Science Grade 7

knowledge of grade-level content standards. For example, in grade 7, students investigate the Anchoring Phenomena question: *“What is happening to the bath bomb?”* in a topic about matter and solutions. Students begin by watching a video of a bath bomb dissolving in water, recording their thoughts using the Claim-Evidence-Reasoning (CER) framework, and sharing what they think is happening to the bath bomb. In each experience, students conduct investigations in which they develop a model of atoms and molecules, explore physical and chemical changes, test the rates of dissolution of solutes in solutions, and communicate content knowledge. At the close of the topic, students revisit their Anchoring Phenomena claim and develop a final explanation using the evidence and information they collected throughout the topic.

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

- The materials provide opportunities for students to leverage prior knowledge and experiences related to the phenomena and engineering problems within a topic, thus allowing connections to previous science TEKS. For example, in grade 7, students design and build a compost bin and observe organisms in soil samples before and after compost has been made. They research and describe the ideal model for their compost bin, construct a prototype of their compost bin, and test and redesign their prototype based on the results. While designing their compost bin models, students build on content knowledge from prior grade levels as well as newly acquired knowledge from earlier in the lesson.
- The materials allow for different entry points to the learning phenomena and/or solving problems. Materials use the research-based 5E model, which allows students to experience each phenomenon through various means, including teacher demonstrations, hands-on investigations, videos, text, data, and images. For example, 7th-grade topics utilize different approaches to each phenomenon or problem presented in the materials. In the launch of Topic 10, students watch a video explaining the disappearance of waste in Earth’s ecosystems and record their thoughts on the question, *“Why isn’t Earth covered in waste?”* using the Claim-Evidence-Reasoning framework. In Topic 10, Experience 1, students observe photos of different organisms and discuss which two are more closely related based on external features and pelvic bones. In Topic 10, Experience 2, students conduct a hands-on investigation using agar plates and swabs to explore where microorganisms come from. Generally, when it is not possible for students to have first-hand experiences of phenomena within the classroom, videos, text, data, and images are used. For example, in Topic 6, Experience 3, students watch a video about artificial oyster reefs to question and discuss what may have happened to wild oyster reefs that require humans to build artificial ones.
- The materials provide guidance for teachers and students to adequately address potential areas of misunderstanding. For example, at the beginning of each topic in the materials, the Topic Overview offers teachers a Teacher Background, Teacher Prep Videos, Common Misconceptions, and TEKS Progression sections. The *“Common Misconceptions”* section helps teachers gauge where some students may have inaccurate or inadequate prior knowledge. This section also informs teachers of the necessary prerequisite content and skills students will need to be successful in the topic. Such teacher guidance materials prepare teachers to provide accurate explanations of scientific content and concepts, as well as respond to students who may have gaps or misconceptions in their prior knowledge.

# Savvas Learning Texas Experience Science Grade 7

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

- The materials clearly outline the scientific concepts behind each phenomenon and engineering problem that correspond to content concepts across the grade level. Materials provide opportunities for students to build an understanding of grade 7 content through anchoring phenomena or problems within the Experience 5E lessons. In grade 7, topics (chapters) provide multiple investigations within experiences, each of which works together to connect to the topic's Anchoring Phenomenon or problem to develop an understanding of corresponding science concepts.
- The materials clearly outline the learning goals behind each phenomenon or engineering problem. The materials offer learning goals for launching the anchoring phenomenon in the Teacher Guide on the Topic launch page. The TEKS being addressed are included on the overview and planner pages and include the SEP verbiage used in the launch paragraph. The Teacher materials clearly outline the scientific concepts and goals behind each phenomenon and science and engineering problem.
- A clear overarching goal or objective for the entire topic is evident in the Preview the Topic section of the Topic Overview page in the Teacher Guide. For example, on Topic 3, Properties and Changes in Matter Topic Overview page, the "Preview of the Topic" includes the overarching goal for the topic before providing an overview of the Experiences objectives that will allow them to meet the overarching goal for the topic.



# Savvas Learning Texas Experience Science Grade 7

## Indicator 3.1

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

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

## Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The materials connect new learning to previous and future learning within and across grade levels. Materials in the Teacher's Guide explain how concepts, such as force and motion, connect within a grade level. For example, In grade 7, Topic 1, Force and Motion, students analyze the effect of balanced and unbalanced forces on an object's motion using Newton's first law of motion. Later, in Topic 4, The Solar System, students connect that knowledge to explain how gravitational force governs the motion of solar system objects.
- In the Teacher's Guide, topic (unit) overviews include a TEKS Progression, which indicates science content standards of focus for the grade-level topic and provides a vertical alignment for previous and future grade-level standards. For example, in grade 7, Topic 1, Force and Motion introduces students to speed, velocity, and Newton's first law of motion. The TEKS Progression within the Topic 1 Overview shows how the standard connects to prior content standards from 6th grade, including Newton's third law of motion, and future content standards in the 8th grade, such as Newton's second law of motion and simultaneous applications of all three Newton's laws.
- The materials present content in a way that builds complexity within and across units and grade levels. For example, the Course Planner and Pacing Guide show how each topic connects to other topics within the grade 7 materials, and the scope and sequence shows how each topic

## Savvas Learning Texas Experience Science Grade 7

connects to other topics across grades 6, 7, and 8. For example, in grade 7, Topic 2, Thermal Energy, students explore how thermal energy moves into, out of, and within a system through the process of convection. Subsequently, in Topic 5, Plate Tectonics, students build on their prior knowledge by explaining how convection currents in the Earth's mantle cause tectonic plates to move. Grade 8 students will expand their understanding of convection in Topic 5, Weather and Climate, to explore how solar energy interacts with Earth's atmosphere and hydrosphere to influence weather and climate.

- In the Teacher's Guide, the Topic Planners show how experiences build and connect across the topic, with specific information for each experience, including an Everyday Phenomenon question and the lesson components following the 5E model to build complexity of student knowledge by exploring and experiencing then applying and assessing for mastery.

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

- The materials include a progression of concrete knowledge and then representational before abstract reasoning when presenting concepts that allow for an increasingly deeper conceptual understanding using the 5E model for each grade level. In grade 7, materials ensure students experience a phenomenon or problem before using models as a tool for reasoning. Materials give students opportunities to use models to depict relationships and form explanations. For example, in Topic 1, Force and Motion, students use the anchoring phenomenon of cars racing at the Texas Motor Speedway to explore speed, velocity, and Newton's first law of motion. Throughout the topic, students gain knowledge to develop and refine a detailed model to explain how the speed of the cars is calculated, distinguish between speed and velocity, and apply Newton's first law of motion to the motion of the cars. The components of the experiences accurately present the core concepts and make clear to the student that balanced and unbalanced forces affect the motion of the cars.
- Materials utilize visual aids and hands-on learning experiences as scaffolds to build an understanding of abstract concepts. For example, in Topic 1, Force and Motion, materials logically sequence learning about speed, velocity, and Newton's first law of motion in a methodical manner to promote abstract learning. The materials initially introduce students to calculating average speed and distinguishing the speed and velocity of moving cars. In the next experience, students measure, record, and interpret a car's motion using distance-time graphs. Finally, in experience 3, students analyze the effect of balanced and unbalanced forces on cars to discover that Newton's first law of motion governs their motion.
- The materials use of the 5E model guides teachers to sequence instruction in a way that activates or builds prior knowledge before explicit teaching occurs, which allows for an increasingly deeper conceptual understanding. For example, in grade 7, Topic 1, Force and Motion, students begin the Explain section of Experience 1, Speed and Velocity by reflecting on what they have learned from the prior Explore activities to describe speed and distance. This prepares students to use what they know to progress through the experience and distinguish between speed and velocity.

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

- The materials clearly present required grade-specific core concepts, recurring themes and concepts, and science and engineering practices (SEP). For example, in grades 6-8, the Teacher's

## Savvas Learning Texas Experience Science Grade 7

Guide provides teachers with a clear and concise Course Planner and Pacing Guide that leads students to learn via science instruction. Topic Overviews within the Teacher's Guide provide important course-specific concepts and recurring SEPs. The materials include student-driven conceptual learning strategies, concrete mathematical applications, and hands-on practice.

- Materials use the 5E (Engage, Explore, Explain, Elaborate, Evaluate) instructional model for sequencing science instruction. For example, in a grade 7 lesson within Topic 1, Force and Motion, teachers engage students with an anchoring phenomenon based on the motion of race cars at Texas Motor Speedway and the question, "How can you represent the motion of the cars?" Students then design an investigation to collect and record distance and time data to determine an object's average speed. The teacher then explains displacement, speed, and velocity using a scientific text with key vocabulary and visual aids. Students elaborate on their learning by exploring the physics of "sticking" a landing in gymnastics. Materials provide a summative assessment of speed and velocity to evaluate student learning after the experience (lesson).
- The materials accurately present core concepts, recurring themes and concepts (RTC), and science and engineering practices. Materials are free from scientific inaccuracies across lessons, units, and grade levels. The Teacher's Guide includes a Texas Essential Knowledge and Skills grade 7 Correlations chart, which lists the science content standards, RTCs, and SEPs and states where each is located in the Teacher's Guide and Student Activity Companion materials. This chart serves as a reference tool for teachers, providing them with a clear overview of the essential knowledge and skills that will be covered in grade 7.

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

- The materials include specific learning targets for each grade level. For example, materials provide a scope and sequence document that outlines when learning targets are introduced, developed, and mastered within the program. For grades 6-8, the Course Planner and Pacing Guide in the Teacher's Guide provides the overarching learning targets for each topic (unit). For example, in grade 7, the overview for Topic 1, Force and Motion, states that students will distinguish between speed and velocity, calculate average speed, and analyze and describe an object's motion using Newton's first law of motion and distance-time graphs.
- The materials clearly define the boundaries of content that students must master for the grade level. For example, in Topic 7, Body Systems: Organization, Communication, and Movement, the TEKS Progression in the Topic Overview clearly defines the grade 7 science content standards covered in the topic and outlines upcoming standards for the future. The materials for this topic introduce the concept of describing the hierarchical organization of cells, tissues, organs, and organ systems in plants and animals, as stated in student expectation 7.13B, and leaves identifying the function of cell organelles in plant and animal cells, till grade 8. In grades 6-8, each Topic Overview also provides teachers with Background Information, Teacher Prep Videos, and Common Misconceptions of students so the teacher is prepared for the lesson.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 3.2

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

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

### Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The materials include guiding documents that support teachers in understanding how new learning connects to previous and future learning across grade levels. For example, the Teacher's Guide provides a scope and sequence (p. xxii-xxv) that outlines the big picture, broad references to the science and engineering practices (SEP), recurring themes and concepts (RTC), and science content standards vertically across grades 6-8. The Teacher's Guide includes a TEKS Progression summary for each topic, which supports teachers in understanding the necessary foundational knowledge and skills to develop grade-level content and how learning will progress in subsequent grades. For example, the Topic Overview for Topic 4, The Solar System, details prior knowledge on gravity and biotic and abiotic factors from grade 6 and future concepts on Earth's atmosphere from grade 8 that connect to the grade-level concepts covered in the topic.
- The materials include guiding documents that explain how content and concepts increase in depth and complexity across lessons and units within the grade level. Within the Teacher's Guide, materials provide guidance for teachers to lead students through completing topic experiences to develop content, concepts, and SEPs. For example, in Topic 5, Plate Tectonics, experiences on Earth's changing features build over time, so students first identify evidence of Earth's changes, then explore the dynamic changes in Earth's crust, which create land and water

# Savvas Learning Texas Experience Science Grade 7

features. In the next topic, students apply conceptual understandings to real-world contexts in watersheds and the impact of human activity on groundwater.

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 background information for teachers that provides explanations and examples of science concepts. For example, in grades 6-8, the Topic Overview documents in the Teacher's Guide each provide a short summary of concepts the teacher should have knowledge of before instruction of the topic (unit). The overview also includes a reference for teachers to watch the Teacher Prep Video for directions in instructing the experience.
- The materials identify common grade-level misconceptions students may have about science concepts. The Topic Overview provides a bulleted list of common misconceptions to provide teachers with an advanced overview of student misconceptions that may arise during instruction. The overview details the misconception in bold text and provides a brief explanation. As teachers progress through topic experiences, Address Misconceptions notes are included along the sidebars of the Teacher's Guide to highlight and provide guidance on those student misconceptions as they occur within the topic.
- The materials provide support for teachers to develop their own understanding of more advanced, grade-level concepts. The Topic Overviews within the Teacher's Guide provide teachers with a TEKS Progression summary and Background Knowledge section for each topic.

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

- The materials provide a rationale for the instructional design of the program. The Designed For Texas, Awe-Inspiring Phenomena Explorations section within the Teacher's Guide explains that Texas-centric phenomena are used to draw on student experiences and engage students through questioning and inquiry. Materials provide an explanation for why materials are designed the way they are and highlight key features of the instructional design. For example, the Course Planner and Pacing Guide, TEKS Grade 7 Correlation, and ELPS Correlation documents in the Teacher's Guide, and Texas Experience Science: Research-based Pedagogy document in the Getting Started resource in Savvas Realize, provides a comprehensive overview of how the content is structured, the use of anchoring phenomena, and the integration of concepts, science and engineering practices, recurring themes and concepts, and literacy and inquiry skills throughout the course.
- The materials provide a framework explaining the main intent or goals of the program. Materials provide a Teacher's Guide that thoroughly describes the program's instructional approaches and references the researched-based strategies present in each topic. For example, the Activate Learning using the 5Es page in the Teacher's Guide Introduction explains the research-based instructional design of the materials and provides information on the student-centered 5E format of the experiences within the grade 7 materials.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 4.1

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

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

## Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide a definition of sensemaking and identify specific sensemaking behaviors. For example, the SEPs and Themes Preview Presentation of the course provides an online presentation of activities aimed to promote student engagement and support students in making sense of concepts and phenomena by encouraging them to adopt the roles of scientists and engineers.
- The materials consistently provide learning activities that support students' meaningful sensemaking. For example, in Topic 3, Matter and Solutions, students are introduced to elements and compounds, become familiar with atoms and chemical formulas, explore the differences between physical and chemical changes, and investigate aqueous solutions and ways to affect the rate of dissolution of a solute while investigating what occurs when a bath bomb is placed in water. The materials introduce the topic with the anchoring phenomenon question: "What is happening to the bath bomb?" Students watch a video of a bath bomb dissolving in

## Savvas Learning Texas Experience Science Grade 7

water and use the Claim-Evidence-Reasoning framework to explain the processes that occur as the bath bomb dissolves in water. As students progress through the experiences within the topic, they develop models to compare elements and compounds, use tools to observe properties and identify an unknown substance, and reflect on what they have learned about physical and chemical changes in a Make Meaning Activity. In the Topic Wrap-up, students revisit the anchoring phenomenon by finalizing their Claim-Evidence-Reasoning chart and explaining in writing their answer to the original anchoring phenomenon question.

- In addition, the materials provide an everyday phenomenon demo and activity, lab investigation, and reading activity for each experience within topics, which support students thinking, reading, speaking, and writing as engineers. In Topic 5, Plate Tectonics, grade 7 students investigate the anchoring phenomenon of human impact on water resources. Each experience in the topic begins with an everyday phenomenon that ties back to the anchoring phenomenon. For example, in Experience 2, students preview an image of an irrigation system being used on a farm in Texas and use evidence from the image and prior knowledge to consider how the water gets under the ground and how it is used by humans. Later in the lesson, students design and build a model aquifer to test the permeability of different materials and explain how pollutants can get into groundwater. In the Read About It activity, students use strategies and science skills to make sense of the text and images and engage in peer discussion. This approach allows students to actively engage in scientific inquiry, develop their understanding of complex concepts, and effectively collaborate and communicate their findings like 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.

- The materials provide opportunities for students to engage in purposeful and targeted activities with grade-level appropriate scientific texts. For example, in Topic 4, Experience 1, students read a scientific text suitable for their grade level about objects in the solar system. The Teacher's Guide recommends that students should read the day before classroom discussion of the text and directs teachers to use strategies to close the learning gap and deepen understanding. Following the reading, a companion application activity prompts students to compare and contrast inner and outer planets, explain how distance from the Sun affects an object's orbital path, and draw and label a diagram that describes the physical properties, location, and movements of the Earth's moon.
- Materials provide opportunities for students to engage with scientific texts, including activities, such as pre-reading and vocabulary, to help them develop an understanding of concepts. For example, in Topic 11, Experience 1, the Read About It, Energy Flow in Ecosystems text highlights key vocabulary and includes diagrams and visuals to support students in developing an understanding of concepts. In addition, the slides within the Key Ideas Presentation, Energy Flow in Ecosystems are designed to support the Read About It activity, gauge student understanding of concepts through differentiated instruction activities, and provide vocabulary assistance to support science and engineering practices and promote student engagement.
- The materials provide multiple opportunities for students to engage with scientific texts to gather evidence and develop an understanding of concepts. Every topic in the course has an Authentic Reading and companion activity that provides opportunities for students to engage in reading grade-level scientific text and writing activities to gather evidence and develop and extend their understanding of concepts. For example, in Topic 6, Experience 1, students read the *Authentic Reading: Troubled Waters on the Inland Seas* article about the Great Lakes and how

# Savvas Learning Texas Experience Science Grade 7

the health of this surface water is impacted by human activities and use text evidence to answer questions and respond to prompts in the companion activity.

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

- The materials provide opportunities for students to communicate thinking on scientific concepts in written and graphic modes. Every Experience within each Topic has a Read About It text that offers opportunities for students to engage in written and graphic modes of communication. Students respond to questions and writing or drawing prompts in the Apply It section of the Read About It text to demonstrate understanding of the text.
- Every Topic also includes a STEAM Activity that provides additional opportunities for students to demonstrate an understanding of science content in writing prompts and graphics by developing charts, tables, or models while incorporating science and engineering practices. For example, in Topic 3, Experience 3, students research colors that can be made by mixing different pigments. Students plan an investigation to develop new fabric dyes and develop marketing materials with graphics and detailed instructions for using and diluting the dyes.
- In addition, at the end of the Explain portion of each Experience, students complete a Take-Notes companion activity to communicate what they have learned throughout the lesson, using various written and graphic ways to demonstrate understanding. For example, in Topic 4, Experience 3, students use graphic pictures to respond to writing prompts to describe the basic requirements for life on Earth and determine how Earth's proximity to the sun supports life.

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 provide authentic student engagement and perseverance of concepts through productive struggle while acting as scientists and engineers. The SEPs and Themes Preview in the introduction pages of the Teacher's Guide explains that students will plan and conduct investigations, then use models and analyze data to take on the roles of scientists and engineers, learning through active engagement with phenomena and the process of engineering design. As they design, plan, and conduct procedural investigations related to scientific phenomena and engineering problems, they may encounter challenges and experience productive struggle, which fosters critical thinking and problem-solving skills. By actively participating in these activities, students develop the mindset and skills necessary to excel as scientists and engineers. For example, in Topic 9, Experience 2, students work in groups to conduct research, describe, and model a food crop they want to improve through artificial selection. Students create models of their crops to propose solutions to a problem, evaluate and compare their models with other groups, and make revisions as needed.
- The materials support students as "practitioners" while they are figuring out (sensemaking) and productively struggling. Each Topic offers a Hands-On Lab Activity that provides students the opportunity to design, plan, and conduct investigations on scientific phenomena and engineering problems. For example, in Topic 1, Experience 3, investigate Newton's first law and the relationship between forces and motion. In the activity, students plan and conduct an investigation to study the effects of different forces on an object. Students record observations and analyze how different forces cause objects to increase or decrease in speed. At the end of



## Savvas Learning Texas Experience Science Grade 7

the activity, students work with a partner to relate their observations to balanced and unbalanced forces. Students then develop an explanation using Newton's first law of motion and their collected data to describe how forces change an object's motion.

- The materials create "transfer" opportunities for students to take what they have learned and use it flexibly in new situations. For example, after learning about the main functions of the nervous system in the human organism in Topic 7, Experience 2, students relate how hearing aids and cochlear implants are electronic devices that partially restore hearing to deliver sound to nerve cells, spiraling back to the concept of energy transformations, which was covered in the prior grade level.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 5.1

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

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

### Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims. The grade 7 materials provide a SEPs and Themes Preview presentation to introduce students to the Science and Engineering Practices (SEP) and Recurring Themes and Concepts (RTC) while connecting to core science concepts. For example, the Plan and Conduct an Investigation Activity section introduces students to how scientists use the process of scientific inquiry to plan and conduct investigations and develop hypotheses, while the Use Models and Analyze Data Activity reminds students to develop models and/or analyze data to support or refute a claim or explanation. The questions and topics in the supporting Teacher's Guide pages provide detailed guidance for leading students through developing and supporting claims or hypotheses in preparation for the program's Anchoring Phenomenon and Everyday Phenomenon activities. The SEPs and Themes Preview presentation may be revisited throughout the year as needed to support student learning and reinforce how scientists use evidence to make inferences and predictions.
- The materials specifically prompt students to use evidence when supporting their hypotheses and claims. Each Topic of the program begins with an Anchoring Phenomenon Activity that prompts students to make a claim or develop a model. For example, in the Teacher's Guide, the

## Savvas Learning Texas Experience Science Grade 7

Topic 4 Launch page instructs teachers to show students a video to introduce the phenomenon of a meteor in the sky above Texas. Teachers then ask guiding questions as students gather evidence of the meteor's motion and complete a Claim-Evidence-Reasoning (CER) protocol. Materials prompt students to use their video observations, prior knowledge, and personal experiences as preliminary evidence in developing and supporting their claim. Students will revisit the CER graphic organizer as they progress through each Experience within the Topic and use their newly acquired evidence at the end of each lesson to revisit and revise their claims.

- In addition, throughout the materials, students are encouraged to formulate predictions or hypotheses as part of activities in which they utilize data and observations gathered during investigations as evidence to either accept or reject initial predictions. For example, in Topic 6, Experience 1, the hands-on lab in the Explore section, "How can you remove microplastics from surface water?" prompts students to formulate their own hypotheses to the question as they work in groups to plan out an investigation and develop a model. In the subsequent Analyze and Interpret Data section of the lab, students employ the evidence they have observed, collected, and analyzed to validate or refute their initial hypotheses.

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

- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience to which they can contextualize new terms. For example, in Topic 2, Thermal Energy, students complete a Vocabulary Builder activity after discussing and explaining the Anchoring Phenomenon question, "How does this soft glowing material become a glass bottle?" In the Vocabulary Builder, students are introduced to terms specific to the examples of thermal energy shown in the Anchoring Phenomenon video and consider words they already know or discuss those they do not know. The Evaluate section of every Experience includes an Experience Vocabulary activity with each vocabulary word provided in a table. Students are prompted to complete the table by locating or illustrating a picture that depicts the word and composing a definition for the term using their own words.
- The materials present scientific vocabulary using multiple representations. Students preview vocabulary in every Topic with the Vocabulary Builder to activate prior knowledge and launch the Topic's Anchoring Phenomenon. Students are also exposed to bolded and highlighted vocabulary terms in the Read About It activities within every Experience. The Vocab Tip sidebar features provide further guidance for engaging with content vocabulary terms. For example, in Topic 7, Experience 1 in the Read About It, How Traits are Passed text, the Vocab Tip provides a definition for the word *diversity* in student-friendly language and asks students to think of how they have heard this word used outside of science, then look for this word within the Experience. In addition, materials provide editable/printable Vocabulary Cards and implementation guidance in the Teacher's Guide to help students organize and master Topic vocabulary.
- The materials provide opportunities for students to apply scientific vocabulary within context. In the Hands-on, Virtual, and Quick labs, materials prompt students to record evidence using newly acquired vocabulary to support claims made during the investigations. For example in Topic 1, Experience 3, the Analyze and Interpret Data section of the Hands-On Lab prompts students to use Newton's first law of motion to explain how forces affect motion and support their explanation with what they have learned up to this point in the Experience. Later in the Talk About It section of the Read About It, Newton's First Law of Motion text, materials provide specific key terms for students to use while discussing the forces involved in a real-world scenario.

# Savvas Learning Texas Experience Science Grade 7

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 provide opportunities for students to develop how to engage in the practice of argumentation and discourse. For example, in Topic 2, Thermal Energy, the Anchoring Phenomenon Video and questions introduce students to the concept of scientific arguments as they investigate the phenomenon of glass blowing. In the grade 7 Teacher's Guide, the Topic Launch prompts teachers to lead a classroom discussion that engages and develops student content knowledge. In the Anchoring Phenomenon activity, students use the Claim-Evidence-Reasoning (CER) framework to develop arguments using scientific knowledge and reasoning, and the Teacher's Guide provides guidance for teachers to aid students in making a claim or an argument. At the end of each Experience, students revisit the Anchoring Phenomenon by updating and revising their arguments using evidence and knowledge gained from the lesson.
- In addition, the Thinking Like a Scientist and Mastering Scientific and Engineering Practices sidebar features of the Teacher's Guide provide teachers with strategies that will help build skills in argumentation. For example, in Topic 10, Experience 1, the Thinking Like a Scientist feature in the Explore section provides a strategy for students to listen respectfully, which is critical when engaging in scientific arguments.
- The materials integrate argumentation and discourse within stages of the learning cycle. For example, in Topic 1, Experience 3, students study how thermal energy flows in a system. During the Engage section of the Experience, students engage in discourse as they discuss and use prior knowledge to develop explanations to the Everyday Phenomenon question: "Why will both objects reach the same temperature?" Later in the Explore section, materials prompt students to engage in an argument while using data evidence to answer a question. In the Make Meaning activity during the Explain section, the materials prompt students to read a classmate's claim on thermal energy and provide evidence as to why they agree or disagree with the claim. During the Topic 1 Wrap-Up, materials ask students to revisit the CER chart they developed at the start of the topic and engage in discourse with a partner regarding evidence to include in their chart to support their claim and ways to clarify their reasoning.

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 instruction for how to construct and present a verbal or written argument to problems using evidence acquired from learning experiences. Throughout the grade 7 materials, students utilize the Claim-Evidence-Reasoning (CER) activity to use prior knowledge and discussion with peers to develop claims for a topic's Anchoring Phenomena. For example, in Topic 2, Thermal Energy, students watch an Anchoring Phenomenon Video of a glass blowing. Materials then prompt students to make a claim or statement to answer the Anchoring Phenomenon question: "How does this soft glowing material become a glass bottle?"
- The materials provide opportunities for students to justify explanations of phenomena and solutions to problems using written and verbal arguments to problems using evidence acquired from learning experiences. Throughout the course, the Anchoring Phenomenon allows students to justify explanations based on their evidence. At the end of each Topic, the Wrap-up materials prompt students to revisit their Anchoring Phenomenon activity and make revisions as needed using newly-acquired evidence from their learning in each Experience. For example, in Topic 3,

# Savvas Learning Texas Experience Science Grade 7

Matter and Solutions, the Teacher's Guide prompts teachers to guide students as they revisit their CER charts from the start of the topic and work with a partner to finalize their charts with evidence to support their claim and revise their reasoning.

- The materials provide criteria for developmentally appropriate arguments to explain a phenomenon or defend a solution to problems using evidence acquired from learning experiences. Every Topic incorporates a STEAM Activity in which students act as engineers to develop and evaluate solutions to problems using evidence acquired from Experiences. For example, in Topic 5, Plate Tectonics STEAM Activity, students work in groups to design a device that measures the strength of an earthquake. Students collaborate to discuss and define the problem, use evidence to design a solution, and develop a prototype. Students then test and evaluate their designs and propose how their device could be used to design an earthquake-resistant building.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 5.2

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

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

### Meets | Score 4/4

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

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 teachers with possible student responses to questions and tasks. For example, in Topic 4, Experience 3, students study the characteristics of Earth that allow life to exist. During each section of the 5E lesson, the Teacher's Guide provides teachers with answers, possible responses, or expected outcomes to questions, worksheets, or lab investigations. For example, guidance for the Explain reading Read About It, Life and Earth directs the teacher to ask two questions as a strategy to help students make sense of the images and text. Teachers should ask, "What would happen if a living thing did not have one of the four needs met?" and the Teacher's Guide provides the sample answer: "The organism would not be able to survive." In addition, every student worksheet has an accompanying Teacher Support Document with sample answers which serve as exemplars for teachers, providing them with reference points and guidance. For example, the Explain note-taking guide Key Ideas, Life and Earth, teacher support document provides correct answers to each component of the document, differentiated by a bright purple text.
- The materials provide support for teachers to deepen student thinking through questioning. The Teacher's Guide provides general guidelines on how to deepen student thinking during class discussion and question prompts to help facilitate student thinking. For example, when

# Savvas Learning Texas Experience Science Grade 7

presenting the Everyday Phenomenon at the start of each Experience, the Teacher's Guide provides teachers with questions to ask as students make sense of the phenomenon. In addition, each Topic's Anchoring Phenomenon Activity has an accompanying Teacher Support Document that provides possible student responses, probable changes to student responses when revisiting the phenomenon during the Topic Wrap-up, and an in-depth description of the phenomenon.

- Each Topic has a component that provides instructions and guidance to teachers that help clarify misconceptions. In the Teacher's Guide, the Overview pages for every Topic include a Common Misconceptions feature that enables teachers to anticipate potential misunderstandings among students and effectively address them. In addition, materials provide guidance for teachers to build on students' thinking. For example, in Topic 4, Experience 2, the Teacher Support notes in the Key Ideas Presentation, Gravity and Motion in the Solar System provide teachers with specific instructions for each slide of the presentation, including directions, questions (with answers) to ask students, and differentiation strategies.

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

- The materials provide embedded support for the teacher in how to introduce and scaffold students' development of scientific vocabulary. For example, in the Teacher's Guide, each Topic Overview has a TEKS Progression section that provides teachers a preview of the current topic vocabulary, as well as a look back to vocabulary students should be familiar with from prior learning. The grade 7 materials offer guiding questions to teachers to support students in differentiating and understanding terms as they build their scientific vocabulary. For example, during each Experience's Key Ideas Presentation, vocabulary terms appear bolded and highlighted when first used in the presentation. In addition, the embedded Teacher Notes in the Presentation include a vocabulary list with definitions and guidance on how to introduce new terms to students and facilitate learning.
- In each Topic Launch, the Vocabulary Builder and Vocabulary Cards help provide clear guidance on building content vocabulary. The Teacher's Guide directs teachers to use both resources as students navigate through the Experiences and Vocabulary Support boxes along the sidebar, providing examples of how teachers can support students' scientific vocabulary development. For example, in the Explore section of Topic 7, Experience 1, the sidebar Vocabulary Support box directs teachers to activate prior knowledge before starting the Virtual Lab by challenging students to identify word parts in *hierarchy* and *organization* and determine how the terms are related.
- The materials provide guidance for the teacher on how to support students use of scientific vocabulary in context. As students work through each Experience within a Topic, vocabulary is at the forefront of all 5E lesson components. For example, in the Explain section of Topic 7, Experience 1, the Read About It, Organization in Plants and Animals text highlights key vocabulary with reinforcement of meaning and use with embedded sidebar features, such as the Build Vocabulary and Talk About It activities. Targeted vocabulary instruction is continued throughout every Topic in Experience activities, including Hands-on, Virtual, and Quick Labs during the Explore section and Experience Vocabulary activities in the Evaluate section. Each activity has accompanying teacher supports to aid in the development of the student's use of scientific vocabulary in context.

# Savvas Learning Texas Experience Science Grade 7

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 support to prepare for student discourse. The grade 7 materials include SEPs and Themes Preview to introduce the skills of using evidence to support claims and engaging in respectful discourse. For example, the Teacher Support in the notes section of Slides 13 and 14 of the SEPs and Themes Preview Presentation provides guidance and structure for teachers to lead students to engage in discourse and develop written or verbal claims. In addition, several Topics in the course have students use the Claim-Evidence-Reasoning (CER) framework to make sense of the Anchoring Phenomenon. For example, the Topic Launch for Topic 6, Water and Human Activity, provides teachers with specific guidance to support students as they use prior knowledge, personal experiences, and observations from the Anchoring Phenomenon video to develop written and verbal claims to the Anchoring Phenomenon question, “How can washing your clothes impact our water resources?”
- The materials provide teacher questions for supporting student discourse and the use of evidence in constructing written and verbal claims. Questions push students to use evidence to support their claims in both written and spoken discourse. Throughout the course, the Engage section of every Experience starts with an Everyday Phenomenon question and activity that drives the lesson and ties back learning to the Topic’s Anchoring Phenomenon. The Teacher’s Guide provides accompanying question prompts for teachers to guide student observations and assist students in constructing explanations to the Everyday Phenomenon question. For example, in Topic 9, Experience 1, students view an image of a Venus flytrap plant with young offspring plants that look identical to it, read the caption, and explain why they think the young plants are identical to the parent plant. The Teacher’s Guide prompts teachers to ask: “Do you think that the young Venus flytraps come from one or two parents?” and “Why is having offspring that look identical to parent organisms an advantage for a population?” to aid students in developing explanations to the Everyday Phenomenon question, “Why do the young Venus Flytrap plants look identical to the parent plant?”
- The materials provide guidance that teachers can use to provide feedback to students while engaging in discourse. For example, in the Revisit Everyday Phenomenon activity at the end of the Explain section of Topic 9, Experience 1, students engage in a class discussion to tie back learning to the Everyday Phenomenon question. The Teacher’s Guide instructs teachers to ignore wrong or right answers and rather, encourage students to explain their reasoning and consider different perspectives while revising their answers to the question. Additionally, in Topic 6, Experience 2, the Thinking Like a Scientist, Perspective-Taking feature along the sidebar of the Teacher’s Guide instructs teachers to remind students of the importance of active listening while working in groups to complete the Hands-on lab investigation “How can you reduce the impact of fishing?” The feature also provides prompts teachers may use to help students engage in respectful discussions, such as, “I didn’t think of it that way because \_\_\_\_.” “How did you make the connection between \_\_\_ and \_\_\_?” and “Have you considered \_\_\_\_?”

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

- The materials provide teacher support and guidance to engage students’ thinking in various modes of communication throughout the year. The grade 7 materials include the SEPs and Themes Preview to introduce students to the skills of sharing their thinking and finding



# Savvas Learning Texas Experience Science Grade 7

solutions. For example, the Teacher Support in the notes section of Slides 17 and 18 of the SEPs and Themes Preview Presentation provides guidance and structure for teachers to facilitate students in critical thinking and designing solutions to problems.

- In every Topic of the course, the materials include a STEAM Activity, which requires students to develop solutions to real-world problems and provide explanations in written and verbal form. For example, in Topic 6, Experience 3, the STEAM Activity, How can you remove plastic debris from water? instructs students to take on the role of a marine engineer to design and build a model of a device that can remove plastic pollution from a body of water. The Teacher Support document includes sample student answers to all questions as well as Teaching Tips specifically designed to assist students in finding solutions to the problem.
- The materials provide teacher support for facilitating the sharing of students' finding solutions. Materials provide feedback tips and examples teachers can use to support students throughout the learning cycle. For example, in Topic 9, Experience 2, the STEAM Activity, How can you modify a food crop to help reduce world hunger? instructs students to work in groups to research, describe, and model a food crop they want to improve through artificial selection to survive changing environmental conditions. The accompanying Teacher Support document provides detailed Teaching Tips offering valuable insights, strategies, and suggestions for teachers to effectively guide and support students throughout the problem-solving process. In addition, the Teacher's Guide provides support for concluding the learning cycle at the end of a Topic. For example, in the Topic 3 Wrap-up, the Performance-Based Assessment in the TEKS Practice activity challenges students to draft a proposal or design an investigation for determining the types of materials that should be used in construction to slow thermal energy transfer between buildings and environments. Student proposals must include a diagram to support the student's idea, be consistent with scientific ideas of thermal energy transfer, and be communicated to a local construction company. The Teacher's Guide provides a rubric to aid teachers in scoring the assessment and guide students in developing their solutions.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 6.1

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

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include diagnostic assessments for measuring student learning and identifying learning gains in a variety of formats. Grade 7 course materials include opportunities for formal and informal diagnostic assessments. For example, every Topic includes a Topic Readiness Test, which serves as a formal diagnostic assessment to gauge students' prior knowledge before delving into the new grade-level content. In addition, course materials include both the Anchoring Phenomenon and Everyday Phenomenon activities as informal diagnostic assessments, which allow students to engage with real-world examples of phenomena and develop initial models or explanations. As students work through the Topic or Experiences and develop a deeper understanding of scientific concepts, they make revisions to their original models or explanations. For example, during the Engage part of Topic 2, Experience 1, students use observations and prior knowledge to develop a model for the Everyday Phenomenon question, "Why do your hands get warmer when you rub them together?" Later, in the Explain part of the Experience, students revisit their models and revise their initial answers with peer review, then share their explanations during a class discussion.
- Materials include formative assessments in a variety of formats to measure student learning and determine the next steps for instruction. Grade 7 course materials include opportunities for formal and informal formative assessments. For example, the Teacher's Guide includes Question

## Savvas Learning Texas Experience Science Grade 7

Prompts for teachers to use as students complete the Explain activities of each Experience, including the Read About It articles and Key Ideas Presentations. These questions serve as informal moments for teachers to gauge student understanding, identify misconceptions, and make instructional adjustments as students engage in discussions and explanations with peers. In addition, the materials embed Exit Tickets at the close of the Engage, Explore, and Explain portions of every 5E Experience. These Exit Tickets serve as formal opportunities for students to demonstrate their understanding of new scientific concepts in a variety of formats. For example, on slide 17 of the Key Ideas Presentation for Topic 6, Experience 3, the Exit Ticket asks students to explain two ways humans can negatively or positively impact the ocean by creating a persuasive illustrated poster to display in school hallways or writing a short speech to share at the next school assembly.

- Materials include summative assessments in a variety of formats to measure student learning. The grade 7 course materials include Experience Quizzes, Topic Tests, and Short Constructed Response tests that serve as formal summative assessments at the end of every Experience and Topic. For example, in Topic 6, Water and Human Activity, the Topic Test includes 15 multiple-choice questions, while the Short Constructed Response test includes 3 open-ended questions. Each assessment is offered in two formats, as an assignable, auto-graded, online assessment or as an editable printable version. In addition, the Performance-Based Assessment included in every Topic Wrap-Up provides teachers an opportunity to formally assess students' application of knowledge and skills to real-world problems and phenomena.
- Materials include a variety of informal assessments that give teachers feedback on student learning in the moment so that they can modify instructional approaches. The grade 7 course materials follow the 5E model, which allows teachers to assess students' learning at each step of the model in every Experience, using a variety of formats, including verbal question prompts, graphic organizers, and multiple-choice or open-ended questions. In addition, the Revisit Anchoring Phenomenon and Revisit Everyday Phenomenon activities provide teachers with an informal opportunity to check for understanding and allow students to modify their original models or explanations with peer and/or teacher assistance. For example, during the Engage part of Topic 1, Experience 1, students use observations and prior knowledge to develop and communicate an explanation to the Everyday Phenomenon question: "How can you compare the motion of the two marbles?" Later, in the Revisiting Everyday Phenomenon during the Explain part of the Experience, students revise their initial explanations with peer review and teacher assistance, then share their explanations during a class discussion.

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, as outlined in the TEKS by grade level. The grade 7 course materials offer multiple options for assessing all TEKS and student expectations, including Hands-On Labs, Data Analysis activities, STEAM activities, Virtual Labs, Performance-Based Assessments, Topic Tests, and other activities. In the Teacher's Guide, the Texas Essential Knowledge and Skills Grade 7 Correlation serves as a resource for teachers to identify TEKS that are assessed throughout the course and where each student expectation may be found in the Teacher's Guide and Student Activity Companion. In addition, the Savvas Realize platform offers teachers a search function that may be used to search for assessments by specific TEKS standards.
- The Topic Overview and At-A-Glance documents in the Teacher's Guide also provide a resource where teachers may identify where each student expectation is assessed in each Experience.

# Savvas Learning Texas Experience Science Grade 7

The grade 7 course materials offer assessments that are purposefully designed to measure students' comprehension and proficiency in the concepts and skills covered within the materials. For example, in Topic 4, The Solar System, the Topic Wrap-up includes a TEKS Practice activity using multiple-choice questions, open-ended questions, and a "Revisit Anchoring Phenomenon" to evaluate student understanding of all student expectations covered within the topic.

- The materials indicate which student expectations are assessed. Student materials such as Hands-On Labs, Make Meaning activities, Read About Its, Key Ideas Take Notes activities, Experience Reviews, and TEKS Practice activities indicate which student expectations are assessed by listing all relevant TEKS at the beginning of the student version of the activity. For example, the first page of the Hands-On Lab: "How can you reduce the impact of fishing?" found in Topic 6, Experience 3, lists the TEKS "7.11B, 7.3A, 7.3B, 7.3C, 7.5D" below the title of the activity. In addition, the Savvas Realize platform offers Teacher Resources for formal assessments such as Topic Tests and Short Constructed Response tests, which include answers for multiple-choice questions, rubrics, and exemplar responses for open-ended questions, and lists the Depth of Knowledge (DOK) level and the student expectations that are assessed for each question.

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

- The materials include assessments that require students to integrate scientific knowledge and science and engineering practices (SEP) with recurrent themes and concepts (RTC) appropriate to the student expectation being assessed. The grade 7 course materials include multiple opportunities for SEPs and RTCs to be integrated into student assessments. In the Explore section of every Experience in the course, the Hands-On Labs, Quick Labs, and Data Analysis activities allow for the integration of the assessment of scientific concepts, SEPs, and RTCs. For example, in Topic 2, Experience 3, the Data Analysis Activity: "How does thermal energy move between two objects in a system?" asks students to analyze data to identify patterns and analyze and explain how energy flows through systems.
- In addition, the Elaborate section of every Experience in the course offers STEAM Activities and Performance-Based Assessments, which integrate SEPs as students apply their knowledge of scientific concepts to real-world problems and phenomena. For example, in Topic 2, Thermal Energy, the STEAM Activity: "How can you build a thermal chimney?" asks students to design and build a thermal chimney by developing and using models and analyzing and explaining how energy flows through a system.
- The Evaluate section of every Experience in the course includes assessments such as Experience Quizzes, Topic Tests, and Short Constructed Response tests that integrate scientific concepts with SEPs and RTCs. For example, in Topic 2, Experience 2, question 5 of the Quiz, Thermal Energy Transfer, asks students to use a model to develop explanations describing how energy flows through systems.

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

- Materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. Grade 7 course materials include multiple assessments requiring students to apply knowledge and skills to novel contexts. Every Topic includes Hands-On Labs, STEAM Activities, Virtual Labs, Performance-Based Assessments, Data Analysis Activities, and

## Savvas Learning Texas Experience Science Grade 7

Quick Labs that are aligned to student expectations and scientific and engineering practices (SEP).

- For example, in Topic 7, Body Systems: Organization, Communication, and Movement, during the STEAM Activity: “How have prostheses developed and changed over time?” students are given the opportunity to apply their knowledge and skills related to the structures and functions of human systems to define problems, develop and use models, relate the impact of past and current research, and analyze the relationship between structure and function. This assessment challenges students to apply their understanding of human body systems to analyze past and current prosthetic devices and design an improved prosthetic device.
- In addition, during the Explore section of Topic 4, Experience 3, the Data Analysis Activity: “What characteristics of Earth allow life to exist?” directs students to analyze data related to factors that allow life to exist on Earth. Students analyze data and identify patterns to determine which factors could allow other planets to harbor life as we know it on Earth.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 6.2

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

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

### Meets | Score 2/2

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

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.**

- Materials include information that guides teachers in evaluating student responses. Materials guide teachers to look for specific components when evaluating student responses. In every Topic of the grade 7 course, the Topic Wrap-Up includes a Performance-Based Assessment that challenges students to apply newly acquired science content to a real-world problem or issue. The Teacher's Guide provides guidance as to what components should be included in student responses, as well as a rubric with clear criteria and guidelines to assist teachers in making informed judgments about student designs. For example, in Topic 11, Matter and Energy in Ecosystems, the Teacher's Guide directs teachers to ensure that student responses to the Performance-Based Assessment should "include a food web and energy pyramid for a chosen set of 10 organisms, a paragraph that describes the available energy at each trophic level of the pyramid, and the role that decomposers play in an ecosystem."
- Materials include resources that guide teachers in evaluating student responses. The grade 7 course materials offer teachers recommended questions or prompts, distinguished by a blue font and bolded "Ask." Teachers may use these prompts when checking for student understanding while progressing through each Experience. The Teacher's Guide provides teachers with specific expected answers and suggested follow-ups to each question prompt, designated by an italicized font. For example, during the Explain part of Topic 11, Experience 1,

## Savvas Learning Texas Experience Science Grade 7

the Teacher's Guide directs teachers to ask students, “How are essential nutrients added back to the soil?” as they read the Read About It: Energy Flow in Ecosystems text. The Teacher's Guide provides a sample student answer: “decomposers break down matter that producers absorb,” then directs teachers to follow up with the next question: “How can you use the food web to show evidence that the raccoon is a primary, secondary, and tertiary consumer?” In addition, every activity in the grade 7 course materials has an accompanying Teacher Support document teachers may use to score and evaluate student responses. Furthermore, each slide of every Key Ideas Presentation includes Teacher Support notes with sample student answers and discussion guidance teachers may use as they evaluate and guide student responses.

- The Savvas Realize digital platform offers Experience Quizzes and Topic Tests as editable and printable documents or assignable, online, auto-graded assessments. The printable versions of these assessments have corresponding Teacher Support documents that include answer keys and exemplar responses teachers may use to evaluate student responses to multiple-choice and open-response items. For the online versions of Experience Quizzes and Topic Tests, teachers may review auto-scored items, evaluate submitted answers, and provide feedback on the scoring page of the Realize dashboard.

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.

- Materials provide guidance documents and resources to support teachers' analysis and interpretation of assessment data. The grade 7 course materials provide supports that guide teachers when responding to individual student needs based on measures of student progress, including observational data gathered during classroom interactions. The Savvas Realize digital platform Help video, “Class Mastery by Standard,” shows teachers how to analyze an individual student's overall mastery percentage based on the assignments to date, as well as how many questions they have answered correctly for each assessed standard. Teachers may use this information as guidance for developing individual standards-informed plans for striving students.
- Materials provide guidance and tools to support teachers in responding to data to inform instruction. Guidance for analyzing and responding to student data for formal summative assessments, such as Topic Tests, is provided in the Topic Test Remediation documents. This resource explains, in detail, the answers and supporting concepts for each item in the Topic Test. The document can be assigned to students to review alongside their completed Topic Test, or teachers may use the information to inform targeted remediation. In Topic 11, Matter and Energy in Ecosystems, the Topic Test Remediation tool provides short explanations of every test question in student-friendly language. For example, information for question 5 states, “Producers take nitrogen through their root systems. Eventually, decomposers break down organisms using bacteria.”
- Materials include assessment tools that yield data teachers can easily analyze and interpret. For example, the Savvas Realize digital platform Help video, “Data Overview,” provides an overview for teachers on how data reports can be filtered and sorted to show patterns of performance and students' strengths and needs, individually and as a class. When reviewing score data for assignments, teachers will see a color-coded report that shows average scores on completed tests or quizzes, e.g., blue for 80-100%, yellow for 60-79%, and red for 0-59%.

# Savvas Learning Texas Experience Science Grade 7

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

- The information gathered from the assessment tools helps teachers when planning core science instruction. The Savvas Realize Digital platform offers several assessment tools with relevant information teachers may use to plan future instruction, remediation, and extensions. For example, the “Digital User Guide” and Help video, “Data Overview,” provide an overview for teachers on how data reports can be used for planning instruction and differentiation. Student data in the Classes tab enables teachers to view color-coded class results by assignment or standard and drill down to each completed assessment to analyze individual student responses. The information in these reports helps teachers monitor class progress and make necessary adjustments for intervention and/or extension.
- In addition, the Help videos, “Score Data Overview,” “Class Results by Assignment,” and “Class Mastery by Standard,” provide additional guidance to teachers on how to access data reports and utilize them to plan instruction, intervention, or extension. For example, Experience assignments, such as Interactivities and Virtual Labs, may be used as formative assessment tools that provide instant mastery feedback to both teachers and students. Teachers may also add comments to student assignments in the Realize Digital platform, which students may read to aid in the intervention process.
- The information gathered from the assessment tools helps teachers when planning differentiated instruction. Data reports in the Savvas Realize Digital platform allow teachers to color-code or organize student data to differentiate science instruction and easily group students according to assessment results. For example, when reviewing score data for assignments, teachers will see a color-coded report that shows average scores on completed tests or quizzes, e.g., blue for 80-100%, yellow for 60-79%, and red for 0-59%. The data also include reports of completion rate and usage to help teachers monitor class progress and make necessary adjustments for intervention, extension, and future instruction.

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

- Materials provide a variety of student resources for teachers to use in responding to performance data. The grade 7 course materials include remediation tools and intervention activities teachers can use for reteaching concepts. For example, every Topic Test includes a Remediation document that describes, in detail, the answers and supporting concepts for each item in the Topic Test. This document may be assigned to students to review alongside their completed Topic Test, or teachers may use the information to inform targeted remediation.
- In addition, Math Support documents include a description of relevant math skills as they apply to science concepts and provide a guided sample problem to help students practice the skill. These documents are available in the Explore part of Experiences when appropriate and may be assigned if student performance data indicates students need support with math skills as related to the Topic or Experience. For example, in Topic 4, Experience 1, the Math Support: Using Proportions to Calculate Scale document may be assigned to students to reinforce the skill of using proportions to calculate scale to develop a scale model of the objects in the solar system.
- Materials provide a variety of teacher guidance for responding to student data. For example, the grade 7 materials provide direct instruction of science concepts, vocabulary flashcards, and TEKS Practice activities for students to develop mastery through each Experience. The Teacher's



## Savvas Learning Texas Experience Science Grade 7

Guide provides teachers with “Differentiated Instruction” features that may be revisited after collecting and analyzing student assessment data. This feature suggests ways teachers can assist struggling students as well as provide extension options for students who have mastered the standard. For example, in Topic 4, Experience 1, the “Differentiated Instruction” feature directs teachers to ask struggling students to create a T-chart comparing and contrasting planets and meteors, while students in need of a challenge describe how a meteor may look different from another planet.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 6.3

Assessments are clear and easy to understand.

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

### Meets | Score 2/2

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

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 for the grade level that are scientifically accurate. Formative and summative assessments found in the Savvas Texas Experience Science include assessment items that align with taught TEKS and present grade-level content and concepts, science and engineering practices, and recurring themes and concepts in a scientifically accurate way. For example, in Topic 1, Force and Motion, the Topic Test at the end of the unit accurately describes forces and represents changes in motion in distance-time graphs.
- Assessments contain items for the grade level or course that avoid bias. Formative and summative assessments include assessment items that present content and examples fairly and impartially with no impact on student performance based on such factors as a student's home language, place of origin, gender, or race and ethnicity. For example, in Topic 7, Body Systems - Organization, Communication, and Movement, question 5 in the Topic Test includes an accurately labeled illustration of four human body systems without gender identification. This illustration assists students in answering the question without distracting from the content.
- Assessments contain items for the grade level that are free from errors. For example, every Topic in the grade 7 course materials includes formal and informal assessment opportunities, such as Exit Tickets, Experience Quizzes, and Topic Tests, which include multiple-choice items and short constructed responses free from errors and accompanied by answer keys.

# Savvas Learning Texas Experience Science Grade 7

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

- Assessment tools use clear pictures and graphics. In the grade 7 Texas Experience Science Program, assessments, including Readiness Tests, Experience Quizzes, and Topic Tests, use clear pictures and graphics. For example, in Topic 7, Body Systems - Organization, Communication, and Movement, question 5 of the Topic Test includes four illustrations of human body systems. The pictures are an appropriate size compared to the question. They are clearly labeled and provide enough information for students to identify the function of the system without being distracted or overwhelmed.
- Assessments contain pictures and graphics that are developmentally appropriate. All assessments in the grade 7 course materials incorporate illustrated and real-world pictures and graphics to enhance student understanding. For example, in Topic 11, Matter and Energy in Ecosystem, the Topic Test incorporates pictures and graphics relevant to the questions, allowing students to collect data from tables and diagrams that align with the developmentally appropriate content and skills as outlined in the TEKS.
- In addition, the variety of pictures and graphics available in assessments are identifiable and age-appropriate. They provide students with a visual representation of science content to support understanding of suitable questions. For example, in Topic 5, Plate Tectonics, questions 1-3 ask students to refer to a labeled diagram of a convergent plate boundary to answer questions. The provided diagram of the convergent plate boundary assists students by including distinctly labeled continental and oceanic crusts and shaded areas to represent magma in the Earth's crust.

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

- Materials provide clear guidance for teachers to consistently and accurately administer assessment tools. Every Topic in the grade 7 course materials includes a Topic Overview and Topic Planner in the Teacher's Guide, with guidance for the primary assessment tools for all Experiences and Topics. For example, the Evaluate row in each Topic Planner indicates that the Topic Wrap-Up and Topic Quiz should be performed at the end of the Experience and includes the recommended amount of time to administer the assessments. All Topic Planners include a Topic Assessment box at the bottom of the page to show what assessment options are available for a topic, such as the Topic Readiness Test, TEKS Practice, Revisit Anchoring Phenomenon, and End of Topic Test. In addition, the materials provide teachers with clear and efficient guidance on administering assessments, including reminders and helpful tips.
- The materials include detailed information that supports the teacher's understanding of assessment tools and their scoring procedures. For example, in each Topic Wrap-Up, assessment tools are outlined and provided for evaluating student understanding of the Topic. For example, in Topic 4, The Solar System, the Topic Wrap-up in the Teacher's Guide includes a rubric for scoring the Performance-Based Assessment and guiding teachers in evaluating student products. In addition, the Topic Wrap-up includes a suggested time frame for the Topic Test and guidance on using the Topic Test Remediation activity for addressing areas of concern and content not mastered on the Topic Test.
- In addition, the Teacher's Guide offers recommendations for breaking down long assessments into manageable parts across multiple days or class periods, ensuring a smooth and organized assessment process for both teachers and students.

# Savvas Learning Texas Experience Science Grade 7

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

- Materials offer accommodations for assessment tools so that students of all abilities can demonstrate mastery of learning goals. The grade 7 Realize online platform includes assessments that provide teachers with the ability to make accommodations for assessment tools, including Experience Quizzes, Topic Readiness Tests, Topic Tests, and Topic Short Constructed Responses. In the Realize platform, teachers can choose from both digital and printable versions of these assessments, providing teachers the option to edit the number of questions on an assessment and/or reduce the number of distractors for multiple-choice questions. These accommodations reduce the amount of reading and question complexity while still allowing students to demonstrate mastery of knowledge and skills. Teacher guidance for accommodations on all assessment materials can be accessed in the *TX Science Accommodation Guide* found in Additional Program Resource on the grade 7 Realize online platform.
- Assessments in the grade 7 Realize online platform offer accessibility features such as alternative text for images and tagged page content for screen reading clarity. These features ensure clear pictures and graphics in assessments are accessible for students with different needs. Online assessments and Google-formatted documents in the Realize platform are designed to work with screen readers, Braille devices, and screen magnification features in online browsers.
- In addition, the grade 7 Realize online platform provides a “Build a Test” feature that allows teachers to develop tailored assessments based on student’s individual needs and learning levels. Using the “Build a Test” feature, teachers may add their questions or select questions from a test bank to customize the length and complexity of a formal assessment.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 7.1

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

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

## Meets | Score 2/2

The materials meet the criteria for this indicator. Materials 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 mastery. Materials provide enrichment activities for all levels of learners. Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.

Evidence includes but is not limited to:

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

- The materials include teacher guidance for scaffolding instruction and differentiating activities for students who have not yet achieved mastery. The grade 7 Teacher's Guide includes instructions for teachers to scaffold learning and support students in knowledge building. In the Explain section of each Experience, the “Make Meaning” segment provides teachers with specific guiding questions to support students who struggle while demonstrating their ability to explain what they have learned at this point in the Experience. For example, in Topic 1, Experience 1, the “Make Meaning: What do you know about Speed and Distance?” segment asks students to calculate and compare the speeds of two individuals and draw a diagram of three objects with similar speeds yet differing velocities. The Teacher's Guide states that if students cannot provide an explanation for the first part of the activity, the teacher should remind them of the work they did in the Hands-On Lab and ask how students can use distance and time to determine speed.
- In addition, in each Experience within each Topic, the “Differentiated Instruction” and “ELPS Targeted Support” boxes provide teacher guidance to assist students who may struggle with conceptual connections, address the needs of diverse learners, and support students at different levels of language proficiency. For example, in the Explain section of Topic 10, Experience 3, materials provide differentiated strategies, such as hand gestures and read-alouds, to guide students as they identify key vocabulary in the Key Ideas Presentation. Later, in the Evaluate section of the Experience, the Differentiated Instruction box guides teachers to lead a class discussion and ask probing questions to aid struggling students in determining the relationship between the Anchoring phenomenon and the Everyday phenomenon.

## Savvas Learning Texas Experience Science Grade 7

- Materials ensure that teachers can target instruction to reteach skills necessary to access grade-level content. For example, materials contain recommended additional lessons for students who do not master skills on Topic Readiness Tests. The Teacher's Guide recommendations direct the teacher to assign “Remediation Reading” assets and use the “Topic Look Back Presentation” to scaffold student understanding toward mastery of the topic concepts.
- Materials provide additional resources for targeted instruction and differentiation to support students who have not yet achieved mastery. The materials provide supporting activities such as the guided versions of Hands-on Lab activities, Math Support documents, and Read About It side column features. Each Hands-on Lab activity is accompanied by a guided version that accommodates the skill level of the activity for students in need of scaffolds yet still provides opportunities for students to explore a concept through a tactile experience.

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

- The materials provide enrichment activities that account for learner variability. Teacher's Guide resources encourage the exploration and application of grade-level science knowledge and skills in a variety of ways, including applying new learning to things such as real-world applications. For example, the grade 7 materials include robust STEAM activities found in every Topic, which enhances the Experience of science content by providing opportunities for students to investigate a question using science, technology, engineering, art, and mathematics. Each STEAM activity connects to a Hook and Inspire Career activity to further enrich the experience for all students.
- In addition, the materials incorporate curriculum-aligned Legends of Learning games and high-interest Authentic Reading passages, which enrich Topic science content and review key academic vocabulary in meaningful ways. These components aim to engage all learners and ultimately prepare students for mastery of the Topic Readiness Test.
- The Saavas Realize online materials include a variety of real-world scenarios students can explore based on their interests in particular areas of science or community needs. For example, materials include STEM career biographies of renowned scientists and opportunities for students to identify STEM careers related to their study of choice. Students may also conduct independent research on STEM careers and related resources, evaluate and analyze various STEM career resources, and develop an understanding of how STEM careers impact society and the world.

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

- The materials include recommendations for just-in-time scaffolds to develop productive perseverance in learning at the moment. For example, the materials offer students instant feedback when answering multiple-choice questions incorrectly, providing them with immediate information on their responses to support their learning and understanding. In addition, the materials include prompts and cues to assist learners when they face challenges or uncertainty in a task, providing guidance and support to move forward effectively.
- In addition, the grade 7 Teacher's Guide provides multiple Exit Tickets, which allow teachers to check for understanding and assess student mastery before moving on to the next step in the Experience. The Addressing Misconceptions sidebar feature in the Teacher's Guide provides guidance for teachers to spot common student misconceptions in time during instruction to address them with suggested context.

## Savvas Learning Texas Experience Science Grade 7

- The materials provide support and resources for students who are ready to accelerate their learning. The grade 7 materials include enrichment activities that contain challenging activities and assignments, which extend beyond the regular curriculum and stimulate critical thinking, problem-solving, and creativity. For example, in the Explore section of Topic 9, Experience 1, the Teacher's Guide offers differentiated instruction support to challenge students who are ready to extend their learning beyond the Interactivity to watch research whiptail lizards, sharks, or other organisms that reproduce asexually and share their findings with the class.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 7.2

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

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

## Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials engage students in the mastery of the content through a variety of developmentally appropriate instructional approaches. The materials introduce each Topic (chapter) with an Anchoring Phenomenon question that drives the Experiences (lessons) within the Topic and connects scientific concepts to real-world experiences. For example, in Topic 2, Thermal Energy, students investigate the phenomenon of glass blowing to consider the role that thermal energy and the transfer of thermal energy play in the process. Throughout the Topic, students observe examples of everyday phenomena and make connections to the Anchoring Phenomenon at the close of each Experience.
- The grade 7 materials include opportunities for students to engage in inquiry-based learning activities within the Explore section of every Experience. For example, in Topic 4, Experience 2, students conduct a hands-on lab investigation to test how gravity affects the orbital motion of objects with authentic tasks in which students use tools to measure and collect data and make connections to everyday phenomena. The Experience also includes a hands-on lab video to use in conjunction with the investigation to reinforce key concepts, a PhET online simulation from the University of Chicago to further explore gravity, and the Legends of Learning educational



## Savvas Learning Texas Experience Science Grade 7

game “Gravity and the Birth of Our Solar System,” which provides students with another opportunity to demonstrate mastery of the content and practice using key vocabulary in a grade-appropriate context.

- In addition, the materials include connections to scientific concepts in the real world or current events in the Elaborate section of every Experience. For example, in Topic 2, Experience 2, students apply what they have learned about properties of thermal energy transfer in a STEAM Activity. Students work in groups to research, design, and build a model of a thermal chimney based on specific design criteria. Students explore the types of thermal energy transfer and engage in discussion with peers.

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

- The materials support a variety of instructional groupings, including whole group, small group, partners, and one-on-one. The grade 7 materials include Experience components that introduce science content and concepts to be provided to the whole group, while suggestions are provided for small group or one-on-one practice in other components of the Experience.
- Flexibility in grouping is incorporated across all 5E components of every Experience in the program. For example, in Topic 1, Experience 1, students conduct a Hands-on lab investigation in small groups to explore how to determine the speed of an object. Student groups collaboratively design the investigation process, conduct their investigation, record results, and develop a conclusion to answer the question. Later in the Experience, students individually read about speed and velocity in the Read About It activity. Flexibility is built into every 5E section of the materials to utilize whole group discussions at any point in the Experiences.
- The materials provide guidance to teachers on when to use specific grouping structures based on the needs of students. Throughout the Teacher's Guide, the grade 7 materials actively encourage teachers to use collaborative group work during Hands-on lab activities, foster partner work for vocabulary development when introducing Anchoring Phenomenon, and utilize different grouping strategies during reading and note-taking activities to support all learners. For example, during the Explain section of Topic 7, Experience 1, the Teacher's Guide suggests to “consider grouping students by heterogeneous reading abilities” instead of having students independently read the Read About It: *Organization in Plants and Animals* text.

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

- The materials provide multiple types of practices, including modeled, guided, collaborative, and independent practice. For example, every Experience utilizes the 5E method to ensure students engage in a variety of practices as they work through the lesson. Each Experience is introduced with an Engage section in which a teacher models an Everyday Phenomenon to drive the purpose of the lesson and tie back new learning to the Topic's Anchoring Phenomenon. Guiding questions are provided within the Teacher's Guide to assist teachers in engaging students in the phenomenon demonstration. The Explore section includes a Hands-on lab, Virtual lab, or Quick lab activity for students to engage in collaborative group learning while investigating a science concept. The Hands-on lab is available in two versions, Open-Ended or Guided, to provide content or language support as needed for effective implementation. Students complete independent work during the Read About It activity found in the Explain section of each Experience. The Teacher's Guide provides detailed recommendations for each 5E section of the Experience to provide guided support or model learning with various structures for all learners.

# Savvas Learning Texas Experience Science Grade 7

- The materials provide teacher guidance and structures for the effective implementation of multiple types of practices. Grade 7 materials include opportunities in every Experience in which the teacher may model or demonstrate a new skill or concept, and students may practice the skill or concept in a variety of ways. For example, each Hands-on lab activity is available as an Open-ended or Guided version, each with directions on how to effectively implement it in the classroom. In the grade 7 Teacher's Guide, the Explore section of Topic 6, Experience 1, offers both hands-on lab activity options along the sidebar of the resource. This adaptability allows educators to provide suitable levels of support and guidance based on individual student requirements. The teacher instructions within the Teacher's Guide also include a reminder of how to access each version of the lab activity in the online Savvas Realize resource and the Experience Science Activity Companion. Additionally, the teacher tips provided in the materials assist educators in effectively tailoring these activities, ensuring optimal engagement and learning outcomes for students.

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

- Materials represent diverse communities using images and information that are respectful and inclusive. In grade 7 materials, science concepts are associated with stories from individuals of various ethnic backgrounds, promoting cultural awareness and providing positive role models. By incorporating these diverse perspectives, students are encouraged to appreciate and understand the contributions of different cultures to the field of science. For example, each Topic includes STEM Career biographies and Authentic Reading activities illustrating real-world examples from a diversity of communities and places, including rural, urban, and suburban communities, cities, and states across the United States and other countries around the world. Depictions of places are respectful and inclusive, with an emphasis on community strengths, resources, and unique characteristics.
- Information in teacher guidance documents, student materials, scientific texts, and assessments positively portrays a diverse group of scientists and engineers representing a variety of genders, races, ethnicities, abilities, religions, and national origins. For example, in Topic 9, Experience 2, the STEM Careers biography of Michael Rosbash, tells the story of a geneticist born in Kansas City, Missouri, who earned a Nobel Peace Prize in 2017 for his groundbreaking work on how circadian rhythms work in animals.
- Images within the grade 7 materials reflect the diversity of school communities and match the content. Characteristics vary in images to include race and ethnicity, skin tone, gender identity and expression, age, disability status, body size and shape, and hair texture. For example, in the Topic 1, Experience 3, Read About It: *Newton's First Law of Motion* activity, the text is accompanied by images of individuals varying in age, gender, race and ethnicity, and skin tone using forces to conduct everyday activities in grade-level appropriate settings.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 7.3

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

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. Grade 6 materials include listening, reading, writing, and speaking support to help emergent bilingual (EB) students meet grade-level science content expectations. The Teacher's Guide embeds scaffolds for EB students into lessons, such as visuals, gestures, sentence stems, graphic organizers, anchor charts, and manipulatives.
- For example, in Topic 7, Experience 1, the materials provide appropriate scaffolding based on students' English language proficiency level while reading and answering questions in the Read About It: *Organization in Plants and Animals* activity. Later, materials provide an alternative exit ticket with graphic organizers at the end of the Explain section and sentence frames as differentiated instruction support for students to connect the Everyday Phenomenon to the Anchoring Phenomenon at the end of the lesson.
- Materials include teacher guidance for communication with EB students to create comprehensible input. Every Experience embeds ELPS Targeted Supports and Differentiated Instruction features to provide specific guidance for linguistic accommodations commensurate with various levels of English language proficiency (i.e., beginning, intermediate, advanced, and advanced high). For example, in Topic 6, Experience 2, the differentiated instruction supports in the Take Notes: *Groundwater* section prompt teachers to use visual supports and a hands-on demonstration to help students comprehend key vocabulary related to the formation of groundwater.

# Savvas Learning Texas Experience Science Grade 7

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

- Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English. The Read About It activities in the Explain section of every Experience (lesson) encourage student use of their first language to foster linguistic, affective, cognitive, and academic language development. The Read About It activities include feature sidebar boxes, such as Write About It, Talk About It, and Connect To It, to strategically support student language development. For example, in Topic 5, Experience 3, the Read About It: *Earthquakes* text features a Talk About It sidebar box directing students to discuss their plate tectonic models and diagrams with a partner.
- Every Experience provides a Key Ideas Presentation to discuss science concepts and vocabulary as a class. Each slide in the presentation includes Teacher Support notes for differentiation and guidance on conversation questions to elicit student language about concepts. In addition, the Teacher's Guide provides detailed implementation notes for supporting students' first language in the Take Notes activity that accompanies the Key Ideas Presentation. For example, in Topic 3, Experience 1, in the Take Notes: *Elements and Compounds* activity, teachers are prompted to allow students to take notes in their native languages and then work toward writing their notes in English.
- Grade 7 materials include family letters explaining the instructional objectives and/or homework in languages other than English. The School-to-Home Letter encourages caregivers to explain science concepts in their own words or first language as a means of supporting students' linguistic, affective, cognitive, and academic development.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 7.4

Materials provide guidance on fostering connections between home and school.

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

### Meets | Score 2/2

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

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.

- Materials provide information to share with students and caregivers about the design of the program. For example, the materials provide a Grade 7 School-to-Home Letter, which may be shared with parents and caregivers at the start of the school year. The letter provides information about some of the topics that will be covered in the course and how the program is designed around phenomena and the 5E research-based model.
- Additional information from the Teacher's Guide may be provided to students and caregivers regarding the design of the program. The “Engage in Dynamic Experiences” section details how the program is centered around the 5E model, intending to drive scientific inquiry within the classroom.
- The materials also offer a Planner for every Topic and Experience within the course. These resources include details about how the 5Es are implemented in each topic and lesson and may be shared with parents, caregivers, and students as an overview of the instructional approach for the course.

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

- Materials provide resources and strategies for caregivers to help reinforce student learning and development. The course includes a Grade 7 School-to-Home Letter that may be shared at the beginning of the school year to encourage parents and caregivers to aid in reinforcing student learning outside of the classroom. The letter provides caregivers with suggestions to help their students gain science proficiency and succeed in the course. For example, suggestions include

## Savvas Learning Texas Experience Science Grade 7

“Look through recently completed content and be sure to ask lots of questions. Encourage students to explain what they have learned in their own words or in their first language,” “Ask about homework assignments and check that your student has completed them,” and “Advise your student to use computers, tablets, or other devices in school or at the library. If you have a home computer, help your student do research online.” While the Grade 6 School-to-Home Letter is available in Spanish, the grade 7 letter is not.

- In addition, every Topic in the course offers a Topic School-to-Home Letter that provides the Experiences in the Topic, the Science and Engineering Practices, Recurring Themes and Concepts, and Science Content TEKS that are addressed in the Topic, and a brief description of the Anchoring Phenomenon that will be discussed in the Topic Launch. The letter may be shared with parents and caregivers to provide valuable information about the specific concepts and skills that students will be learning throughout the Topic, as well as practical ideas and suggestions for caregivers to effectively support and engage with students outside of the classroom.
- Materials provide at-home activities for caregivers to help reinforce student learning and development. The Overview for every Topic in the course includes a Home Connection feature along the sidebar of the Teacher's Guide with point-of-use guidance and strategies to engage caregivers to help reinforce learning and development. For example, in the Overview for Topic 3, Matter and Solutions, the Home Connection feature instructs teachers to have students work with a person from their home community to prepare a favorite recipe, identify physical and chemical changes that occur when preparing the recipe, and describe any solutions that were used in the preparations of the recipe.

Materials include information to guide teacher communications with caregivers.

- Materials include teacher guidance for communicating with caregivers. The grade 7 materials include information on engaging caregivers as partners in learning and offer suggestions for establishing a relationship, inviting ongoing communication and partnership, and sharing progress updates.
- The School-to-Home Communications Guide contains valuable information to guide teachers in effectively communicating with parents and caregivers. The guide provides tips to support clear and informative communication, facilitating a strong partnership between teachers and caregivers. For example, the guide instructs teachers to “Invite caregivers to stay involved in their student’s learning. Make sure that they know you welcome their input and contributions and that they know how they can reach you.”
- In addition, the School-to-Home Communications Guide instructs teachers to make use of the Home Connections, Take It Local, and Collaborate with the Community features embedded in Topics throughout the course. These features are found along the sidebar of the Teacher's Guide and may be used to engage caregivers and community members to help students make personal connections to the content.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 8.1

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

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The scope and sequence for Savvas Science 7 provides a broad vertically TEKS-aligned overview of topics (chapters) for grades 6-8. It is easy to navigate and details the order in which knowledge and skills are presented, but skills are not clarified within topics.
- The order of grade 7 topics does not follow the order topics are taught and built within the Grade 7 course materials. For example, on p. xxiii of the Teacher’s Guide, the scope and sequence begins with Topic 3, *Matter and Solutions*, followed by Topic 1, *Force and Motion*.
- Science and Engineering Practices and Recurring Themes and Concepts are not clarified within topics to indicate specific progression. For example, the scope and sequence states, “Scientific and Engineering Practices TEKS 1-4-SEPs and Themes Preview: Also covered throughout course” but a clear progression of the Science and Engineering Practices within the topics is not referenced.
- The order of grade 7 topics follows the order topics are taught and built within the course materials. For example, on p. xvi of the Teacher’s Guide, the scope and sequence begins with Topic 1, *Force and Motion*, and progresses in a logical order for teachers to follow.
- The specific Science Content Standards (SC), Science and Engineering Practices (SEP), and Recurring Themes and Concepts (RTC) TEKS related to each topic are indicated in the scope and sequence.

# Savvas Learning Texas Experience Science Grade 7

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 guidance to help students make connections between topics over the course of the year. For example, the Teacher’s Guide for Savvas Science 7 provides guidance on how to use the resource, options for how to teach the knowledge and skills, instructional plan suggestions, extensions of learning, and where to find Science and Engineering Practices (SEP), Recurring Themes and Concepts (RTC), and Science Content Standards (SC) within teacher resources and student resources.
- The materials provide clarity in understanding how topics and experiences connect core concepts, SEPs, and RTCs. For example, within the grade 7 Teacher’s Guide, each Topic Planner lists all SEPs and RTCs that connect with the Science Content Standards addressed in each experience. In addition, the instructional pages in the Teacher’s Guide provide teachers with strategies to facilitate student-made connections in the “Mastering Scientific and Engineering Practices” and the “Mastering Recurring Themes and Concepts” features which appear along the sidebar in each Experience.
- In the Teacher’s Guide, the “Topic Planner” outlines correlating SEPs, RTCs, and SCs organized by experiences within each topic. The “Topic Launch” and “Experience At-A-Glance” sections of the Teacher’s Guide provide guidance on where to find key resources, such as videos and hands-on lab activities, visuals of resources, common student misconceptions, and guiding questions to facilitate each activity within the lesson.
- The “Experience At-A-Glance” section provides an overview of each experience within a topic. Detailed teacher guidance on how the activity is presented to students following the 5E model, the teacher’s role throughout the process, and how to facilitate students through a hands-on lab activity can be found in the instructional pages following the "Experience At-A-Glance" introduction.

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

- The materials indicate that there is intentional practice and review of Science and Engineering Practices (SEP), Recurring Themes and Concepts (RTC), and Science Content Standards (SC) throughout the year.
- The Teacher’s Guide for Savvas Science 7 details where the SEPs and RTCs are located and practiced across all topics and experiences. For example, as noted in the “Topic Planner” pages, RTC 7.5B is integrated into Topic 3, *Matter and Solutions*, within Experience 3 and again reviewed in Topic 5, *Plate Tectonics*, within Experiences 2, 3, and 4 to support mastery and retention.
- Each “Topic Overview” includes a vertically aligned TEKS Progression chart that outlines Science Content Standards taught in prior years and upcoming years. The "Topic Look Back Presentation" provides a spiral progression of knowledge, including key ideas and concepts from prior grade-level content standards that build on current grade-level topic concepts. To assist with the connections between previous and current science concepts and content, a Spiraling Activity is included in each topic as well as a Spiraling Content section in the Topic Wrap-Up, which prompts teachers to utilize the Spiraling Activity. For example, the Topic 11, *Matter and Energy in Ecosystems*, Spiraling Activity describes content learned in previous topics and provides opportunities for students to make connections between previously taught content



# Savvas Learning Texas Experience Science Grade 7

and current content. To determine mastery of prior content, the materials include a Topic Readiness Test and Remediation Reading for each topic to reinforce, reteach, or review concepts not mastered.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include overview documents that provide teacher guidance and recommendations on how to use all materials and resources. Within the Table of Contents, the "Getting Started with Texas Experience Science Grade 7" tab includes the Program Overview, Teacher Support, and Correlations sections in which teachers may navigate through a multitude of guides and recommendations for all topics (chapters).
- In the Teacher's Guide, the "Topic Planner" details the embedded technology and enrichment activities available for each experience (subchapter) within each topic. For example, on page 126, "Topic Assets" (embedded technologies) for Topic 4, *The Solar System*, are indicated by specific icons within each experience. A legend is provided at the bottom of the page to assist teachers in identifying each technology resource. Enrichment activities are also listed within each experience and indicated by the "Got More Time?" blue plus sign icon.
- Each experience is organized by the 5E model, a research-based instructional strategy, to allow for scaffolded instruction across topics and experiences. Within the Teacher's Guide, each component of the 5E model includes detailed explanations, guiding questions, and teacher

## Savvas Learning Texas Experience Science Grade 7

supports to enhance student learning. For example, within the Explore section, the Hands-On Lab activities provide instructional guidance, such as short lists of materials, expected outcomes, and examples of differentiation. Within the Explain section, text support is provided in the “Read About It” section, including scripted guiding questions and ELPS Targeted Support for emergent bilingual students.

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

- Savvas Science 7 materials include science standards correlations for each topic and experience. On p. xxx, the “TEKS Grade 7 Correlation” document lists all standards, including the Science and Engineering Practices (SEP), Recurring Themes and Concepts (RTC), and Science Content (SC) standards, and states where, by page, topic, or experience, the standards may be found within the materials.
- In the Teacher’s Guide, the “Topic Overview” includes a section titled “TEKS Progression,” which includes the grade-level standards addressed in the topic, the content standards from prior grades that set a foundation for the topic, and the content standards for subsequent grades. Below the “TEKS Progression,” correlating SEPs and RTCs are listed for each topic and demonstrated in the Anchoring Phenomenon that drives critical thinking and enhances student learning throughout each topic.
- The materials include cross-content standards within the grade-level resource for each topic. Each “Topic Planner” within the Teacher’s Guide provides English Language Proficiency Standards (ELPS), College and Career Readiness Standards (CCRM), and Mathematics and English and Reading Language Arts (ELAR) TEKS that correlate with each topic. For example, along the sidebar of p. 219 of the Teacher’s Guide, a cross-content correlation to ELAR makes connections to using prefixes to define and modify the meaning of key vocabulary terms.

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

- Materials include a comprehensive list of all equipment and supplies needed to support instructional activities. Within the Table of Contents, the “Additional Program Resources” tab provides a spreadsheet titled “Master Materials List for Lab Activities: Texas Experience Science Grade 7,” which lists all equipment and supplies needed to support students, teachers, and administrators during investigations following the grade level.
- The Master Materials List includes grade-appropriate equipment and supplies that support instructional activities for the grade level and can be filtered by topic, experience, and activity type, such as Hands-On Lab, STEAM Activity, or Everyday Phenomenon Demo. For grade 7, materials include appropriate tools, such as graduated cylinders, metric rulers, balances, scales, thermometers, laboratory ware, timing devices, models, microscopes, slides, Petri dishes, dissecting kits, satellite images, hand lenses, and lab notebooks or journals.

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

- The materials provide teacher guidance for safety practices and grade-appropriate use of safety equipment during investigations, following Texas Education Agency Science Safety Standards.

## Savvas Learning Texas Experience Science Grade 7

The Explore section of each experience provides explicit guidance for the teacher regarding student safety during each investigation. For example, in Topic 5 - Experience 4: “Volcanoes,” the Teacher’s Guide states, “Students should wear goggles, plastic gloves, and aprons because they are working with shaving cream. Remind students to wash their hands after handling the shaving cream.”

- The materials provide student guidance for safety practices and grade-appropriate use of safety equipment during investigations, following the Texas Education Agency Science Safety Standards. Within the Table of Contents, the “Additional Program Resources” tab provides a Lab Safety Manual, which includes a Student Laboratory Safety Contract, an index of Safety Symbols with icons and short descriptions, and a list of all rules associated with the Dress Code, General Precautions, First Aid, Heating and Fire Safety, Using Chemicals, Glassware, and Sharp Instruments Safely, Animal and Plant Safety, and End-of-Investigation Rules.
- Guidance for safety practices, including the grade-appropriate use of safety equipment during investigations, as provided in the student materials. For example, the Hands-On Lab: “How can you model compounds?” the worksheet states, “Safety: Be sure to follow all safety procedures provided by your teacher.” and includes safety symbol icons with instructions to serve as visual reminders for students.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 8.3

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

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Savvas Science 7 materials include guidance and recommendations on required time for lessons and activities with options for a variety of scheduling considerations. The “Course Planner and Pacing Guide” is organized by topic (chapter) and includes the number of suggested class periods for each topic, following a traditional schedule. The document also includes “Fast Track” and “Got More Time?” options for accelerating and extending topics to fit local scheduling considerations.
- Materials contain a “Topic Planner” providing teachers with considerations for planning instruction at the topic and experience levels. For example, the Topic 1, *Force and Motion*, planner states Experience 1: “Speed and Velocity” lasts 6 periods or 270 minutes. The planner also includes a detailed 5E pacing summary with a breakdown of how long each component within the experience should take, ranging in time from 10-45 minutes each.

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

- Materials guide strategic implementation without disrupting the sequence of content that must be taught. Within the Savvas Science 7 Teacher’s Guide, the “Course Planner and Pacing Guide” offers options for adjusting the time spent on particular activities within topics and experiences without disrupting the sequence of content.
- The materials offer differentiation opportunities to implement for students at varying levels of understanding and ability. For example, the Teacher’s Guide provides strategic implementation

## Savvas Learning Texas Experience Science Grade 7

supports within each experience, such as Alternative Exit Tickets, Differentiated Instruction, Addressing Misconceptions, ELPS Targeted Support, and Vocabulary Support.

- Materials guide the sequence of content taught in an order mostly consistent with the developmental progression of science. For example, materials delineate the order of topics to ensure students learn about precursor concepts first; however, the order of topics in the scope and sequence does not correlate with the order of topics within the “Course Planner and Pacing Guide.” For example, the “Course Planner and Pacing Guide” follows a sequence of scientific concepts that introduces fundamental topics in grade 7, the materials have students calculate average speed using distance and time measurements before they analyze the effect of balanced and unbalanced forces on the motion of an object. The TEKS-Aligned scope and sequence follows this order of topics, and the materials provide implementation guidance or recommendations for adjusting the order without sacrificing developmental progression in situations where local contexts necessitate a change to the order of topics. For example, the Topic Overview in each topic in the Teacher’s Guide includes a preview of the topic, which summarizes the topic and a TEKS progression, which shows current and prerequisite knowledge and skills. In addition, in the Realize course, each experience includes a Teacher Prep Video with an overview of the experience, and every topic includes a Topic Readiness Test with remediation as well as a topic “Look Back” presentation for students in need of reinforcement with prerequisite TEKS.

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

- The Science Savvas 7 materials are flexible and outline a full school year of instruction. The scope and sequence state the Science and Engineering Practices (SEP), Recurring Themes and Concepts (RTC), and Science Content Standards (SC) included throughout the grade-level material.
- The “Course Planner and Pacing Guide” organizes the topics (chapters) and experiences (subchapters) for a full year of instruction, with suggested time stamps that can be adjusted. The topics can be implemented within the time constraints of a school year, and the activities and routines within each experience can be completed within the length of time suggested.
- The “Course Planner and Pacing Guide” also includes “Fast Track” or “Got More Time?” choices for adjusting instructional time. For example, Topic 1, *Force and Motion*, may be completed in 10.5 periods following the “Fast Track” option, whereas following the “Got More Time?” option extends the instructional time to 20.5 periods. Throughout the Teacher’s Guide, icons for both flexibility options are included in teacher materials including the “Topic Planner,” “Topic Launch,” and “Experience-At-A-Glance” to personalize instruction based on student needs.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 9.1

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

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

### Not Scored

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

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

Evidence includes but is not limited to:

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

- Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. Student documents have clear titles and headings with consistent formatting and sufficient white space to support student attention. Some documents include the strategic use of color, such as the Reading Companions.
  - For example, the Google Slide deck that accompanies each unit uses appropriate-sized font and white space. The slides employ color coding and symbols to indicate activities, discussions, and important vocabulary words consistently across units.
- Materials include a clear heading/title for each page, while subheadings have a clear hierarchy.
  - For example, the Unit 1 Overview page begins with a heading of Introduction followed by bulleted (with specific icons) relevant subheadings of Challenge, Science Methods, and Culminating Experience, following a logical progression.

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

- Materials consistently embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. The activities within each unit include student handouts and presentation slides that have clear, visually engaging images that support student learning. These images can be found in the slide deck, reading companions, and unit roadmaps.
  - For example, slide 8 of the Unit 1, Food, Google Slide Deck shows two images of Texas Road Signs and an arrow to indicate what “Farm to Market” means in terms of

# Savvas Learning Texas Experience Science Grade 7

agriculture production. Students are able to make connections to the community and apply it to how agriculture is produced in the state.

- In Unit 1, Lesson 1.15, the phenomenon shown is an image of a marine ecosystem with organism relationships identified and participating in an activity to demonstrate the roles of organisms in the Gulf of Mexico.
- Each slide deck has color-coded slides to represent “Discussion Slides.” These are orange in order to showcase the skill for both the teacher and student without distraction.

Materials include digital components that are free of technical errors.

- Materials are free of technical errors, including spelling, grammar, punctuation, and incorrect content and information. Errors are not found in the teacher lesson resources or the slide deck presentation.
  - For example, Lesson 3.2, What a Variety, has zero technical errors as it is free of spelling, grammar, and punctuation errors.
- Materials are free of inaccurate content materials or information. Each worksheet (embedded or linked) does not contain inaccurate content information.
  - For example, the Pre-Assessment for Unit 2, Water, has clear and accurate information included in the Answer Key, as well as additional background information explaining the content in the Teacher Background Section.



# Savvas Learning Texas Experience Science Grade 7

## Indicator 9.2

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

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

## Not Scored

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

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

Evidence includes but is not limited to:

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

- Materials integrate digital technology and tools that support student learning and engagement. The PocketLab activities are strategically integrated to provide students with real-time data for lab activities.
  - For example, in Unit 2, students use PocketLab devices to collect data and create concept maps or models that describe changes in the particle motion, temperature, and state of water when thermal energy is added or removed.
  - Digital simulations are strategically integrated to provide students with engaging interactive experiences. In Unit 4, students utilize Scratch to work on some basic examples to help them develop programming skills needed for upcoming lessons on Earth through time.
- Materials provide digital technology and tools enhance student learning through such features as simulations.
  - For example, in Lesson 4.2, Early Earth, students are able to complete a PhET Simulation of Gravity and Orbits.
  - In Lesson 2.15, Damages to Infrastructure, students complete a PocketLab simulation where they “compare the infrastructure of two cities to assess which one would be more prone to damages in the event of a flood.”

## Savvas Learning Texas Experience Science Grade 7

- Materials provide teacher guidance for using simulations, interactives, and related activities to support student learning. Teacher guidance includes suggestions for time and pacing, as well as ways to assist students with making observations, asking questions, collecting data, and participating in discussions. The digital technology provided can be found in the Teacher's Guide and/or digital presentation (Google Slides) materials.

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 in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content.
  - For example, materials provide opportunities for students to obtain, evaluate, and communicate information using digital tools. These opportunities can be found in the student digital materials (PhET simulations and PocketLab activities) and Teacher's Guide and/or digital presentation (Google Slides) materials.
  - For example, in Lesson 2.15, Damages to Infrastructure, students complete a PocketLab simulation where they “compare the infrastructure of two cities to assess which one would be more prone to damages in the event of a flood.” Students compare the infrastructure of two cities to assess which one would be more prone to damages in the event of a flood emphasizing the recurring theme of Compare and Contrast.
  - Materials integrate digital technology to support science and engineering concepts. For example, in Lesson 1.4, students utilize a PocketLab device to identify and investigate the cause and effect relationship of sunlight on carbon dioxide absorption in plants (7.5B).
- PhET Simulation activities are designed for students to experience real world applications of the content.
  - For example, in Lesson 4.2, Early Earth, students are able to complete a PhET Simulation of Gravity and Orbits and see in real time how these objects interact.
  - In Lesson 4.23, students utilize online PhET lab simulations to evaluate the cause-and-effect relationship between the Sun's mass and the Earth's orbit around the Sun (7.5B).
- PocketLab activities are strategically integrated to provide students with real-time data for lab activities.
  - For example, in Unit 2, students use Pocketlab devices to collect data and create concept maps or models that describe changes in the particle motion, temperature, and state of water when thermal energy is added or removed.

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

- Materials integrate digital technology that supports student-to-student collaboration.
  - For example, in Lesson 4.2, Early Earth, students are able to work together to complete a PhET Simulation of Gravity and Orbits and discuss how these objects interact.
  - In Lesson 2.15, Damages to Infrastructure, students work together to complete a PocketLab simulation where they “compare the infrastructure of two cities to assess which one would be more prone to damages in the event of a flood” including discussion of their findings.
  - Digital simulations are strategically integrated to provide students with engaging interactive experiences. In Unit 4, students utilize Scratch to work on some basic

# Savvas Learning Texas Experience Science Grade 7

examples to help them develop programming skills needed for upcoming lessons on Earth through time.

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

- Materials utilize digital resources often in Google-based formats, i.e., Google Docs and Google Slides. These formats are commonly implemented in a variety of learning management systems that are found in the classrooms.
- Materials often include files and instructions in PDF format which enables the teacher to provide student access through a variety of learning management systems. In addition, it allows simplistic viewing on mobile devices when computers are not available.
- Materials are accessible and compatible with multiple operating systems and devices. The Unit Google Slide Decks are accessible and compatible with Chromebooks, iPads, PCs, and Apple computers, and or/smartphones, as well as editable on each of these platforms. For example, Unit 1, Food, Slide Deck can be edited and downloaded from the Unit Overview page.

# Savvas Learning Texas Experience Science Grade 7

## Indicator 9.3

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

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

## Not Scored

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.
  - For example, the PocketLab and PhET Simulations are used to enhance the teaching of the TEKS aligned content. Each is used when a specific TEKS is being taught. Throughout the grade levels, these digital materials can be found in each lesson/unit in the Teacher’s Guide.
  - The materials provide a rationale in the course overview for their approach to technology and how it enhances student learning.
  - The materials provide related TEKS and ELPS for online and digital components within the lessons. Hyperlinks are available where appropriate to facilitate planning and ease of use.
- Materials provide a rationale for the use of the digital and online components in the Grade 7 Course Overview, Technology and Teaching Section. It states, “Exposing students to emerging and innovative technologies can encourage student engagement in science subjects and help to build student confidence in the use of technology. Grade 7 provides a variety of opportunities where students can use technology tools to enhance their learning. PocketLab is used in Unit 1 to measure carbon dioxide during cellular respiration. Students research the four stages of the food life cycle, and, for the culminating project, students research recipes to produce nutritionally balanced menus. In Unit 2, students learn about the use of satellites in collecting

# Savvas Learning Texas Experience Science Grade 7

precipitation data. A PhET simulation model can be used to explore the states of matter. Students design a simple piece of technology when they create a water filter. In Unit 3, posters are used to display the research on body systems. The culminating project concludes with the creation of a documentary about an endangered organism. Students learn about asteroid impacts in Unit 4, and think of ways in which technology can be used to prevent a future impact. After an introduction to computer coding, students create an animation to explain how to protect our planet in the future.”

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

- Materials provide clear instructions and tutorials on how to use the embedded technology.
  - For example, the 7th Grade Course Overview, Technology and Teaching Section, gives teacher guidance on how to implement PocketLab Activities, including a video tutorial as well as a PDF of both student instructions and teacher instructions.
- Materials include professional development videos and training for teachers to continue to develop their skills and knowledge in using the embedded technology to support and enhance student learning. Short “Crash Courses” are available, as well as (Zoom) Green Ninja Office Hours where teachers can ask questions and get guidance on embedding technology. All Day Professional Development Opportunities are also available in addition to the Course PocketLab Page that includes video tutorials.

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 digital technology and online components.
  - For example, all of the online simulations are accessible at home or any other location with internet access.
  - The majority of the worksheets and activities are included in PDF format to easily facilitate learning outside of the classroom.
- In the 7th Grade Course Overview, materials provide a PDF letter that teachers can share with families outlining the program and how caregivers can support their students' learning. It encourages families and caregivers to encourage curiosity in their students, get involved with the school and reinforce learning. This can be easily shared through any school's Learning Management System.
- Simulations, Green Ninja Show Videos, and Green Ninja Games like Carbon Command and Carbon Runner, are available on Green Ninja's Website without a required log-in, so they are easily accessible to families and caregivers to help support student engagement.