# **McGraw Hill Texas Science Grade 3 Executive Summary**

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

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

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

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

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

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

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

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

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

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

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

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

• The assessments are clear and easy to understand.

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

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

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

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

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

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

#### Section 10. Additional Information

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

#### **Indicator 2.1**

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

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

# Meets | Score 4/4

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

Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS. Materials provide multiple opportunities to make connections between and within overarching concepts using 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.

• Grade 3 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. For example, in Chapter 3, Lesson 3.2, student materials include the "Changing Forces" activity. Students observe and collect data used to predict outcomes as outlined by TEKS 3.7A. In Chapter 2, students measure and test the physical properties of matter as they investigate how to measure temperature, mass, magnetism, and an object's ability to sink or float. In grade 3, Lesson 8.2, students ask questions and investigate lima bean life cycles with different exposures to light and temperature. Students analyze and interpret data to look for patterns within the investigation. Students reflect on their investigation and how they utilized scientific and engineering principles to guide them.

- The materials systematically prompt students in the Explore section to engage in hands-on activities that provide students with opportunities to practice and demonstrate scientific and engineering practices. The materials systematically provide opportunities for students to show mastery in the Elaborate and Evaluate sections of the student eBook. In Chapter 5, Lesson 5.2, the grade 3 materials include the Build Your Skills segment within the student eBook. In this section, students develop, practice, and demonstrate mastery of science and engineering practices associated with grade 3 TEKS 3.1B and 3.5C.
- The materials include opportunities for students to answer questions using evidence from
  investigations or gathered by others. In the Student Edition, after completing an investigation on
  matter, students answer questions such as "What does measuring and testing tell you about the
  matter?" "Did your results come from the investigations or your prediction?" "How can matter
  be measured, tested, and recorded?"

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

- Grade 3 materials provide multiple opportunities to make connections between and within
  overarching concepts using recurring themes. For example, in Chapter 3, Lesson 3.1, the HandsOn Investigation (Explore activity) and the "Pushes and Pulls Are Forces" feature (Explain
  article), students make connections between the pushes and pulls they experienced in the
  classroom investigation and the overarching concepts of pushes and pulls as contact forces.
  These concepts are later reinforced in the transfer of energy through contact.
- Grade 3 materials include the STEM Connection, providing opportunities to make connections between and within overarching concepts using recurring themes. For example, in Chapter 4, Lesson 4.1, students are introduced to a stained glass artist who utilizes her knowledge of the transfer of light energy to make beautiful reflections within a room, connecting to the overarching concepts of light energy transfer through transparent, translucent, and opaque objects.
- Grade 3 materials provide multiple opportunities to make connections between and within overarching concepts using the recurring themes. The Engage section includes specific information about when recurring themes are introduced and when they are spiraled back into the program. For example, grade 3 materials utilize "Systems and System Models" as a recurring theme in several lessons. Throughout these lessons, students will use the graphic organizer Systems and System Models to understand how related objects come together to form something greater than any piece alone. In Chapter 7, Lesson 3 identifies and investigates relationships between the movements of the Sun, Moon, and Earth. Then in Chapter 7, Lesson 4, students identify the order of the planets in relation to the Sun in the solar system.
- The materials identify overarching concepts using recurring themes and show how they connect within the materials. Recurring Themes and Concepts are directly taught and then woven through activities in Explore and reading in Explain for students to make connections between and within the overarching concepts. In Chapter 2, students Explore the different properties of matter through various hands-on investigations. In reading more about the properties of matter in the Explain section, the materials ask students, "Did any single test show all the properties of an object, or did you need many tests?" The materials systematically introduce the recurring themes in the Engage section of the Teacher's eBook.

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

- Grade 3 materials provide the TEKS at a Glance feature outlining the strategic and systematic
  approach to developing students' content knowledge and skills as appropriate for the concept
  and grade level as outlined in the TEKS. For example, in Chapter 3, the TEKS at a Glance
  highlights the strategic and systematic placement of each grade 3 TEKS associated with Forces
  throughout the chapter to promote student concept knowledge and skill development.
- The materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS. Grade 3 content knowledge and skills are taught using Science and Engineering Practices and recurring themes so students can build and connect knowledge and apply it to new contexts. The materials prompt students to plan and conduct investigations across the year, as well as provide guidance for teachers. For example, grade 3 materials include a Hands-On Investigation in Explore, where students create a slope model and then use water to initiate a landslide to observe how a slide in the soil changes the Earth's surface. This activity builds on previous grade 2 learning about how water moves soil and rock particles across the Earth's surface. In the Chapter Launch, students reflect on and discuss their prior knowledge of food chains and relate it to the "Big Question."
- Grade 3 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. The Program Overview is vertically aligned to allow students to build knowledge throughout the grade level and year after year. The materials contain a Scope and Sequence that is vertically aligned, allows students to build knowledge throughout the grade level, and provides for teacher understanding of grade-level content above and below the grade they are teaching. Moreover, grade 3 materials provide a more specific TEKS progression in each Chapter Overview for the teacher to review what students have already learned and to help guide their learning.
- The materials strategically develop students' content knowledge and skills appropriate for the concept and grade level as outlined in the TEKS. The materials use the 5E model and provide a routine for students to engage with phenomena, gather evidence, connect with science content authentically, and show understanding. The Daily Lesson Plan provides structure to each day's instruction. For example, in Chapter 5, grade 3 materials feature Engage, Explore, Explain, Elaborate, and Evaluate activities to develop students' knowledge and skills as directed by TEKS 3.8A and 3.8B.

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.

- Grade 3 materials include sufficient opportunities, as outlined in the TEKS, for students to ask
  questions and plan and conduct labs and investigations to engage in problem-solving to make
  connections across disciplines and develop an understanding of science concepts. For example,
  in Chapter 3: Forces, students have access to STEAM Stations providing opportunities such as
  "Swinging Solutions," "Magnetic Art," and "Design a Solution!" activities. In the Swinging
  Solutions STEAM Station, students ask questions, collect information, and attempt to design a
  swing that doesn't require moving their legs.
- Grade 3 materials include sufficient opportunities, as outlined in the TEKS, for students to ask
  questions and plan and conduct investigations to engage in problem-solving to make

connections across disciplines and develop an understanding of science concepts. Grade 3 materials systematically include a Hands-On Investigation inside the Explore section of each lesson. The materials provide the teacher with a set of possible student questions, such as in Chapter 6, Lesson 2, as part of the Landslide Hands-On Investigation "How will sliding soil change Earth's surface" and "What questions did you have when you observed the photo of a landslide?"

- The grade 3 materials include sufficient opportunities for students to plan and conduct investigations and ask questions. The Hands-On Investigations in each lesson provide teachers with three options to facilitate the investigation: Structured Inquiry, Guided, or Open. The materials provide step-by-step instructions for Structured Inquiry. The materials give a teacher-facilitated question for students to explore for Guided Inquiry. For Open Inquiry, students write their own questions and create their own investigations.
- The materials include sufficient opportunities to engage in problem-solving to make connections across disciplines. For example, the materials include the Claim, Evidence, and Reasoning process throughout the days of the lesson for students to build on. For example, in grade 3, Lesson 9.1, students make their claim on day 1. On day 2, students search for evidence to support their claims. On day 3, students reason whether their claim is valid or not.

#### **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	M
	grade-level content as outlined in the TEKS.	
2	Materials intentionally leverage students' prior knowledge and experiences related to	М
-	phenomena and engineering problems.	
3	Materials clearly outline for the teacher the scientific concepts and goals behind each	М
3	phenomenon and engineering problem.	

# 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 practices. 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.

- Materials embed phenomena and problems across lessons at the chapter level to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS. The materials use phenomena as a central anchor that drives student learning across each chapter and connects concepts through each chapter's lesson. For example, in Chapter 4, students consider how a fire truck uses energy daily. This phenomenon is echoed within the investigations and readings across lessons, culminating in students forming their own conclusions by the end of the chapter (TEKS 3.8A).
- Grade 3 materials embed "Essential Questions" as a guide when performing scientific and
  engineering practices and recognizing recurring themes across lessons. For example, in Chapter
  5, Lesson 1, the essential question "How is mechanical energy used in everyday life?" guides the
  data collection within the following investigations and information gathering in the Explain
  readings to support students' ability to develop their knowledge through the authentic
  application of concepts and grade-level content as outlined in TEKS 3.8A and 3.8B.

- 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/solve problems. For example, in grade 3, the introduction of Chapter 6 suggests a discussion where students make predictions about "How does land affect Texas ranching?" Later, the Chapter Wrap-Up provides a reflection point to revisit their predictions and refine their thinking with new conclusions while applying all their new understanding of the concept.
- The materials use phenomena as a central anchor that drives student learning across grade-level content in each discipline. Students develop content knowledge as they work to construct explanations of the phenomena and/or solve engineering problems. For example, grade 3 materials embed phenomena across lessons within a matter unit. Students first examine how matter can be measured, tested, and recorded. Materials provide resources for students to investigate and research the physical properties of matter. After investigating, students ask questions about classifying objects based on properties. Later in the chapter, students demonstrate that materials can be combined based on their physical properties to create or modify objects and justify the selection of the materials based on physical properties. Each chapter has a "Big Idea" question, and each lesson has an Essential Question. For example, Chapter 8 focuses on "Where did the plants and animals go?" Lesson 1 asks, "How do temperature and precipitation affect animals?" and Lesson 2 asks, "How do temperature and precipitation affect plants?"

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

- The materials provide opportunities to leverage students' prior knowledge and experiences related to phenomena and engineering problems, ensuring that connections are made to previous science TEKS while allowing students to communicate their experiences outside of school. Each lesson begins with a "Page Keeley Science Probe" that presents an opportunity for students to apply their prior knowledge, as well as for teachers to address any misconceptions. Students draw from their existing schema and experiences to think about the problem presented. For example, in grade 3 materials, Chapter 7, Lesson 2, students discuss their initial ideas about weather in different locations. This phenomenon is later connected to weather patterns and differentiating weather in different locations.
- The materials elicit and leverage students' background knowledge and experience to adequately address potential areas of misunderstanding. Each Chapter Overview contains a summary of "Common Misconceptions" to help teachers gauge where some students may have inaccurate or inadequate prior knowledge. This section also prepares 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. The Chapter Overview also informs teachers of the necessary prerequisite content and skills students will need to be successful in the chapter. The grade 3 student eBook provides opportunities to leverage students' prior knowledge and experience related to the phenomena of various topics in the Chapter Preview section.
- The materials allow different entry points to the learning phenomena and/or solving problems.
   Students experience the phenomena through various means, such as teacher demonstrations, hands-on experiences, videos, text, data, and images. For example, grade 3 materials include several shared experiences with a relevant phenomenon, such as watching a short time-elapsed video of a scuba diver in the ocean or the teacher demonstrating how to change states of

matter by warming an ice cube. Grade 3 materials' phenomena videos are found in the Chapter 3 Preview.

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

- Grade 3 materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem with the Chapter Overview section. In the Chapter 3: Forces overview section, the anchoring phenomenon (What makes a gyro wheel work?) is set next to an outline for each lesson's Essential Question, which provides context for the engineering problems posed throughout the chapter to reach the concept goal mastery. Teacher materials provide "TEKS at a Glance" for each chapter, as well as a Lesson Overview for each lesson. These two sections describe the scope and sequence inside each chapter and lesson and support teachers with the content background and TEKS alignment.
- The materials clearly outline student learning goals behind each phenomenon or engineering problem. Each lesson contains a Hands-On Investigation that clearly outlines its purpose, summary, and expected outcome of the activity. For example, the Hands-On Investigation in Chapter 7, Lesson 1 clearly outlines the following lesson goal: "Students will measure and describe the weather conditions in their area, including air temperature, wind direction, and precipitation."
- The materials clearly outline the student learning goal(s) behind each phenomenon or engineering problem. For example, in grade 3, a lesson on states of matter tasks students with explaining the phenomenon of building the strongest, tallest tower. Materials clearly outline the following lesson goals: "Students will observe changing states of matter."

#### **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.	М
$\vdash$	Materials are intentionally sequenced to scaffold learning in a way that allows for	М
2	increasingly deeper conceptual understanding.	IVI
3	Materials clearly and accurately present grade-level-specific core concepts, recurring themes	М
	and concepts, and science and engineering practices.	
	Mastery requirements of the materials are within the boundaries of the main concepts of the	М
4	grade level.	

# Meets | Score 6/6

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

Evidence includes but is not limited to:

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

- Grade 3 materials are vertically aligned and designed for students to build and connect
  knowledge and skills with and across units and grade levels, as evidenced in the provided full
  "Scope and Sequence" section of the Program Overview teacher ancillary resource. For example,
  the content and skills progression is outlined for teacher support for Grades 3–5.
- Grade 3 materials include the TEKS Progression visual guide in the Chapter Overview, which displays the vertical alignment and intentional design of content and skills to build and connect student knowledge and skills within and across units, connecting it to previous and future learning goals. In "Chapter 4 Overview TEKS Progression," the outline presents the progression of student content, building an understanding of energy within and across Grades K–5.
- The materials present content in a way that builds complexity within and across units and grade levels. At the beginning of Chapter 7, the Chapter Overview outlines student knowledge and skills learned in the previous grade levels, broken down into grade-level TEKS, and summarizes the progression from grades 1 through 4. The materials state that lessons within the chapter will build in complexity, from teaching students requisite knowledge and skills to engaging them in designing investigations.
- In the Teacher eBook, the "Chapter Launch" page reminds teachers to refer to the "TEKS Refresh" guide if students need support on background knowledge and offers resources for

reteaching. This item was not available for review. The materials also include "LearnSmart" review assignments for students to complete. This resource is an adaptive reading tool with scaffolded question prompts and built-in remediation resources. This item was not available for review.

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

- Grade 3 materials are intentionally sequenced to scaffold learning in a way that allows for
  increasingly deeper conceptual understanding, as seen in the "Chapter Resource Snapshot" of
  each chapter. For example, in Chapter 5, Resource Snapshot, Lesson 1 begins with observation
  of an investigation video, progressing to student investigation followed by students applying
  newly attained knowledge in skills within the "Build Your Skills" activity and "Claim, Evidence,
  and Reasoning" exercise.
- Grade 3 materials include a scaffolded progression of targeted vocabulary to promote student
  acquisition of conceptual understanding. Each chapter includes the "Science Language and
  Content Acquisition" page highlighting the scaffolding of content vocabulary from prior
  knowledge through each lesson and the relationship of those terms to applying scientific and
  engineering practices and themes. The materials include interactive notebook activities to assist
  students in documenting their findings during investigations to support vocabulary development
  or give writing prompts to develop students' argumentative and evidence-based writing.
- The materials include a progression of concrete and then representational before abstract reasoning when presenting concepts that allow for increasingly deeper conceptual understanding. Materials use a concrete representational abstract approach to using mathematical calculations as a tool for identifying patterns and relationships by starting with a phenomenon. For example, in Chapter 7, the math "STEAM Steam" lesson requires students first to graph the weather of the current week so that they can identify patterns in the data. After that, the teacher explains the concept or phenomenon. Afterward, the students build their skills by elaborating and writing about what they have learned. Finally, the students are evaluated on all parts of the lesson. In another lesson, students experience testing the physical properties of matter when they test the temperature, mass, magnetism, and ability of objects to sink or float. Students create a chart of their findings during the experiment and use the data they record to make claims about the physical properties of matter.
- The grade 3 materials are intentionally sequenced so that students explore concepts before fully learning about them. Students explore a topic with an Essential Question and then dig deeper to learn more about the topic. For example, in Lesson 9.1, students answer an engaging Essential Question to activate prior knowledge, and then create an investigation to explore the Essential Question. On Days 2–4, students read and discuss infographics, articles, and other materials to learn about the material. Then, students assess their understanding of the content on Day 5.

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

- Grade 3 materials clearly and accurately present grade-level specific core concepts, recurring themes and concepts, and science and engineering practices within each Chapter Opener.
- Grade 3 materials include the "Correlation to TEKS" document, which clearly and accurately
  presents grade 3 core concepts, recurring themes, and application of science and engineering
  practices found within teacher and student resources.

- The materials clearly present grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices. For example, the materials provide a "TEKS Correlation" document that clearly outlines the core content that students will be learning. For example, the grade 3 materials provide a "Plan Your Lesson" spread at the beginning of each lesson. This page outlines TEKS for the lesson, along with recurring themes and SEPs. The lessons are free from inaccuracies. The content is aligned with third-grade standards. The materials also include resources for differentiating lessons for a variety of learners. The materials include student-driven conceptual learning strategies, concrete mathematical applications, and hands-on practice.
- Materials include a Plan Your Lesson page that summarizes the 5E instructional model. Each day
  is broken into the daily lesson cycle: "GET READY," "TEACH," and "ASSESS." Each section is then
  broken down into each step of the lesson.

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

- Grade 3 materials include a variety of formative and summative assessments to evaluate
  student mastery of requirements within the boundaries of the main concepts of the grade level.
  For example, in the Chapter 5 Resource Snapshot, mastery requirements are outlined by various
  assessments on the right-hand side of the table, which are aligned to the TEKS 3.8A and 3.8B on
  the left-hand side.
- Grade 3 materials include Essential Questions at the beginning of each lesson, forming boundaries of the main concepts of the course aligned with grade-level TEKS. In Essential Question Check-ins, students demonstrate mastery requirements as outlined by the TEKS. At the end of each lesson, the Evaluate section provides a formative assessment for students to demonstrate growth and mastery of that lesson's TEKS. Also, at the end of each chapter, the Chapter Wrap-Up offers a summative assessment for students to demonstrate their growth and mastery of all the concepts developed in that chapter. The materials provide a "Quick Check" at the end of every day to assess what students are learning and where misconceptions may be. The materials provide teachers with a guide of questions to ask and how to reinforce learning.
- The materials include specific learning targets for each grade level. For example, materials include a chapter overview that outlines the TEKS, chapter objectives, and common student misconceptions for each lesson within the chapter. The Chapter Launch page in the Teacher eBook includes a section titled "Introduce the Big Idea" that directs the teacher to write the Big Idea statement on the board.

#### **Indicator 3.2**

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

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

# Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include a "Full Scope and Sequence" document to 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. For example, in the "Scope and Sequence" document, teachers' attention is brought to the topics of Forces (Chapter 3), Everyday Energy (Chapter 4), and Mechanical Energy and Speed (Chapter 5) while this same document references these topics in Grades K-5 supporting teachers' awareness of content and skill progression. The Teacher eBook has a TEKS at a Glance chart, which lists the TEKS relevant to that particular chapter. In addition, the Pacing Guide incorporates the TEKS, showing the order in which knowledge and skills are taught and built in the course materials. This Pacing Guide is a TEKS-aligned scope and sequence that contains the TEKS taught within each chapter and a year-long plan that is easily accessible within the course for Third Grade.
- Grade 3 materials provide the "TEKS Progression" visual aid supporting teachers' understanding
  of vertical and horizontal alignment to grade-level TEKS. In Chapter 4, Chapter Overview, the
  TEKS Progression for the third grade Everyday Energy topic outlines the connection for content,
  recurring themes, and scientific and engineering practices for grades K, 2, 3, and 5.

- The materials include guiding documents that support teachers in understanding how new
  learning connects to previous and future learning across grade levels. The materials contain a
  "Chapter Overview" at the beginning of every chapter that showcases which skills and standards
  students should have mastered in previous grades and how learning will progress in the
  subsequent grades. The materials include a guiding document that explains how content and
  concepts increase in depth and complexity across lessons and units.
- The "Program Overview" provides a broad overview for the teacher that explains how science concepts build over time from kindergarten through grade 5. Materials state that students in the early grades begin looking at typical weather and seasons. In early elementary grades, students start looking for patterns in observable weather. Then, in later elementary grades, students begin to grasp that weather has a relationship with Earth's relative position in its orbit around the Sun, which helps them to develop more sophisticated causal explanations of the phenomena observed in early grades. In the EXPLORE phase of the lesson, the "Hand-On Investigation" pages provide detailed instructions on conducting lab investigations and experiments to guide student development of content, concepts, and SEPs.

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

- Grade 3 materials contain explanations and examples of science concepts, including grade-level misconceptions, to support teachers' subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS. For example, in "Chapter 4 Chapter Overview", the material explains a common misconception among students involving Lesson 1: Light Energy, including students' inability to recognize multiple forms of energy beyond the energy of motion as related to TEKS 3.8A. The "Science Background" section at the beginning of each lesson provides background information for teachers with explanations and examples of science concepts. This section prepares teachers to provide accurate explanations of scientific content and concepts, as well as support for teachers to develop their own understanding of more advanced, grade-level concepts.
- Grade 3 materials contain a Teacher Explanation excerpt within the Page Keeley Science Probes
  pages. In Chapter 4, Lesson 1, the "Teacher Explanation" offers a content reference for teachers
  supporting subject knowledge and recognition of barriers to student conceptual development as
  outlined in TEKS 3.8A. This resource also provides rationales for student answer outcomes,
  including areas of common misconception.
- The materials identify common grade-level misconceptions students may have about science concepts. In the "Chapter Overview" for each chapter, the materials identify each lesson, the objective, and common misconceptions, along with guidance on how to address the misconceptions. For example, in a grade 3 matter unit, students conduct simple experimental investigations that test the physical properties of matter. Materials provide background information to teachers about matter, including the difference between mass and density, how to define the three states of matter, and simple ways to change states through heating or cooling. In the "Common Misconceptions" section in the "Chapter overview," materials emphasize where student thinking may be inaccurate about the matter, such as students may think water disintegrates no longer exists after it evaporates or that gas is not made of matter because it cannot be seen.

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

- Grade 3 materials include the "Supporting All Learners" document explaining the intent and
  purpose of the instructional design of the program. The concepts of Universal Design for
  Learning, Texas Science Instructional Model, Multi-Tiered System of Supports, Supporting
  Students Experiencing Difficulty with Literacy in Science and Engineering, including Strategies for
  Students with Special Instructional Needs, Library Media Centers and Information Literacy Skills,
  and Talk About It: Student Discourse are featured within the Supporting All Learners document.
- Grade 3 materials contain "Chapter 1: Onward We Go". This targeted introduction chapter
  exposes teachers and students to the intent and purpose of the instructional design of the
  program. For example, instructional activities to master TEKS, including content knowledge,
  recurring themes, and scientific and engineering practices, are introduced, and opportunities to
  practice are provided.
- The materials provide a purpose or rationale for the program's instructional design. Materials give an explanation for why materials are designed using the "Universal Design for Learning. The materials highlight that this framework gives individuals with different abilities, backgrounds, and motivations equal learning opportunities. The materials provide a framework explaining the main intent or goals of the program. Materials provide a "Program Overview" that thoroughly describes the program's instructional approaches and references the research-based strategies present in each unit. The "Program Overview" describes that the goal is to "empower students to ask questions, pose hypotheses, conduct hands-on investigations, and communicate their findings on paper and in person." The materials provide a rationale for using the 5E model for learning, the Universal Design of Learning, and other components such as MTSS and Literacy connections. The materials explain that they focus on a Student-Centered approach to guide students into a deeper level of learning. The materials provide a rationale for using the Universal Design for Learning (UDL) framework for curriculum development, stating that it "gives individuals with different abilities, backgrounds, and motivations equal opportunities to learn...By incorporating many aspects of UDL, the Texas Science curriculum accommodates diverse learners and maintains high expectations for all learners www.udlcenter.org."

#### **Indicator 4.1**

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

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

## Meets | Score 4/4

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

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

- Grade 3 materials consistently support students' meaningful sensemaking through reading,
  writing, thinking, and acting as scientists and engineers. For example, in Chapter 4, the materials
  include the 'STEM Connection" feature, which prompts students to read and think about a
  stained glass artist's work from a scientific approach, followed by using a student-created
  graphic organizer of pertinent information to develop claims to a writing prompt consisting of
  two questions.
- Grade 3 materials include an activity in Chapter 4 called "Thermal Energy Safety." In this activity, students read and analyze information presented in a poster to identify the safety tips, followed by the students writing a tip that should be added to the poster based on their scientific knowledge and the information provided in the poster, providing students an opportunity for meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers.

- In Chapter 1, materials introduce students to the scientific practices, themes, and routines they will use throughout the curriculum for meaningful sensemaking. This is done through reading, writing, thinking, and acting as scientists and engineers. Each lesson includes a "Page Keeley Science Probe" to support reading and thinking like scientists or engineers. The "Hands-On Investigations" engage all students in acting and thinking like scientists or engineers. Writing like scientists and engineers is supported in the "Claim, Evidence Reasoning" lesson section and "Write About It" segments of the lessons. For example, in Chapter 7, Lesson 4, students complete an investigation about the order of the planets in relation to the Sun, writing their CER responses to that topic.
- The materials include additional sidebars to support scientific and engineering practices. In Chapter 2, after investigating properties of matter, a sidebar called "Science Mindset" reminds teachers that "Scientists carefully analyze and interpret data to address scientific questions. Scientists share their thinking and speech in print and other ways. The materials include sentence frames to support students speaking and writing like scientists, such as, "I stand by my results because \_\_\_\_\_." or "I changed my thinking because \_\_\_\_\_."

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

- Grade 3 materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop an understanding of concepts, including the "Claim, Evidence, and Reasoning" prompts throughout the "Explain" feature within each chapter. For example, in Chapter 3: "Forces", students are asked to consider how often they use pushes and pulls, followed by reading the provided article to collect evidence to support their claim and denote the evidence using annotation tools and partner sharing. The materials also include the "Observe Your World" section within the "Elaborate" activity to provide students with an opportunity to engage with a grade-level appropriate scientific text to gather evidence and develop an understanding of concepts. Following the reading of the "Silent Sound Trains Hounds!" article, students are expected to showcase the evidence collected by answering a writing prompt.
- The grade 3 materials provide purposeful, grade-level appropriate text for each "Explain" part of the lesson with graphics and sidebars to help with comprehension of the text. The materials include vocabulary support with the "Interactive Word Wall" sidebars and in-text support. The materials provide a Lexile level for each "Explain" passage in the "Plan Your Lesson" section under "Text Complexity." Each chapter also provides a "Hook Them With Books" section with texts available for book clubs and other uses.
- The opportunities for students to engage with scientific texts include activities, such as prereading and vocabulary, to help them develop an understanding of concepts. In Chapter 2,
  during the "Explain" phase of the lesson, the student edition lists words to support the
  understanding of properties of matter (which can be added to an interactive word wall), such as
  float, magnetism, mass, matter, physical property, sink, and temperature. Then, the materials
  include a prompt to make a claim about ways matter can be described, followed by non-fiction
  text, which students can use to gather evidence to support their claims.
- The opportunities for students to engage with scientific texts include activities, such as prereading and vocabulary, to help them develop an understanding of concepts. During the
  "Elaborate" phase of the lesson, the student edition includes a "Stem Connection" text. These
  texts feature a diverse group of real scientists, engineers, and STEM professionals.

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

- Grade 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, including the "Word Lab" student resource designed for
  student practice of vocabulary words. Through these interactive word wall opportunities,
  students are encouraged to continuously update a vocabulary graphic organizer to display an
  understanding of scientific terms and concepts developed throughout the lessons.
- Grade 3 materials include "Create Your Foldables," which provides students with opportunities
  to utilize various written and graphic modes of communication to support students in
  developing and displaying an understanding of scientific concepts. For example, in Chapter 5,
  students create a two-tab horizontal foldable to display what mechanical energy is and how it is
  created.
- Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts. Materials include the routine "See, Scan, Analyze" that promotes students' visual literacy practice to develop an understanding of scientific concepts. The routine is first introduced in Chapter 1 and then revisited in every "Explain" section that contains pictures as visual literacy to support students' understanding of scientific concepts. The "Check for Understanding" in the "Explain" section provides an opportunity for students to display their understanding of scientific concepts either in writing or using a graphic organizer.
- Materials provide opportunities for students to communicate thinking on scientific concepts in written and graphic modes. For example, Grade 3 students explore adaptations by acting out the animal's movements. Students complete timed trials and record data in their journals, then create a bar graph to show their data. For reflection, students answer questions in complete sentences. In "Elaborate", students analyze data and write a response. In "Evaluate", students answer multiple-choice and open-ended questions to show their understanding. In Chapter 2, as students learn about Matter, a "Read the Photo" activity shows a steaming cup of hot chocolate surrounded by chocolate bars and cocoa beans. Students are tasked to find three states of matter in the photo, discuss them with a partner, write about them in their science notebook, and state a claim using the following sentence frame, "I think \_\_\_\_\_\_ because \_\_\_\_." They can then practice vocabulary words in the word lab online or update their graphic organizer with their interactive word wall.

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

- Grade 3 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 using the "Hands-On Investigation Library." For example, in Chapter 3,
  Lesson 4, students investigate a dancing paper clip to learn more about objects and magnetism.
- Grade 3 materials include the "Descriptive Investigations" section of Chapter 1, introducing students to the concepts necessary to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, including criteria, discovery, innovation, prototypes, and other terms. Within this activity, students ask questions, plan and

- conduct investigations of a given phenomenon, record observations and data, and communicate results and findings to peers, acting as scientists and engineers.
- The materials support students as "practitioners" while they are sensemaking and productively struggling. Every other chapter concludes with a "STEM Project" that supports students as scientists and engineers as they use scientific practices and engineering principles to complete the activity. The materials also support teachers in understanding the common setbacks and where students may productively struggle. For example, the STEM Project at the end of Chapter 6 is creating a "No-Waste Machine," where students apply what they learned in this chapter about Earth's surface and resources.
- The materials provide authentic student engagement and perseverance of concepts through
  productive struggle. For example, in the "Explore" section of each lesson, students plan and
  create an investigation to answer the essential question (when using the open inquiry option).
  Students also act as scientists when they use the "Claim, Evidence, Reasoning" routine to
  investigate concepts.
- The materials provide authentic student engagement and perseverance of concepts through productive struggle while acting as scientists and engineers. The "Show What YOU Know Projects" for each chapter provides students opportunities to showcase how they made sense of the science concepts. For example, after learning about the physical properties of matter in Chapter 2, students are asked to debate, create or draw an infographic or start a text message with friends about matter. Questions to answer include "What did you learn about matter that surprised you? What can you make with matter? What substances would you like to learn more about?" The rubric for scoring includes the following categories: "shows an understanding of scientific knowledge, correct use of vocabulary, makes connections to everyday life, and activity is of high-quality writing, has clear organization and shows creativity."

#### **Indicator 5.1**

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

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

## Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials specifically prompt students to use evidence when supporting their hypotheses and claims. Each lesson contains a "Hands-On Investigation" in the "Explore" section. After the investigation, the activity prompts students to use evidence to explain whether their results support their initial prediction.
- Materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims. For example, in each lesson, the students follow the "Claim, Evidence, Reasoning" (CER) format to answer the essential question. The student materials encourage students to use the text to find evidence to back up their claims. Students are also encouraged to create an investigation to explore their claims and find evidence. The materials consistently present this routine in each lesson inside the "Explain" section. For Example, in Chapter 3, students are asked to answer how often they use pushes and pulls using evidence to support their claims and build reasoning.
- The materials specifically prompt students to use evidence when supporting their ideas or claims. For example, in "Hands-On Investigations", students answer questions about their investigation but must use evidence from the investigation to support their answers. After

completing an investigation to measure matter in Chapter 2, materials direct teachers to prompt students to use evidence from the investigation to explain how matter can be measured.

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

- Grade 3 materials include the "STEM Connection: Write About It!" section, offering an
  embedded opportunity for students to develop and utilize scientific vocabulary in context. For
  example, in Chapter 3, students choose a prompt and then utilize vocabulary to develop a claim,
  provide evidence, and support their answer with scientific reasoning by applying content and
  skills. This is located in the "Elaborate" section of the materials.
- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience to which they can contextualize new terms. The materials list scientific vocabulary at the beginning of the "Explain" section. Then, each word is embedded and highlighted in the text, where the vocabulary word is used in context. Students can then use the context to develop an understanding of each new term. For example, grade 3 materials present scientific vocabulary terms using clear photographs (such as motion and force) and definitions in student-friendly language.
- The materials include an online interactive resource, "Word Lab," to help students to master vocabulary. Students explore the word's meaning with definitions, pictures, and examples. Students then participate in "Practice It" activities by choosing from multiple-choice or dropdown menus. There are also digital flashcards available to support students as well.

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

- Grade 3 materials include the "Talk About It" icon throughout chapters to integrate argumentation and discourse to support students' development of content knowledge and skills as appropriate to both concept and grade level. In the Teacher Resource Chapter 1 "Onward We Go", the materials explain that students will see the Talk About It icon and should take a moment to talk with a partner or small group regarding the content, vocabulary, or skill being discussed. This prompt type is used across the lessons as an opportunity to discuss what is observed, as well as to argue from evidence about the "Essential Question" and phenomenon being investigated. The materials guide the teacher in introducing the prompt, encouraging discussion, supporting with sentence stems, and providing possible answers.
- The materials integrate argumentation and discourse within stages of the learning cycle. For example, each lesson includes a "Science Mindset" prompt inside the "Explore" section. This prompt educates students on the correct etiquette when discussing with a peer, as well as provides sentence frames to support the initial student argumentation. For example, in Chapter 5, Lesson 1, students are prompted to discuss how mechanical energy is used in everyday actions compared to the "STEM Connection" article explaining mechanical energy relating to dance. STEM Projects include opportunities for discourse, as students report their progress and results to teachers and classmates.
- The materials provide opportunities for students to develop how to engage in the practice of
  argumentation and discourse. Materials introduce students to constructing an argument for
  their own interpretation of the phenomena they observe. Materials provide instructional
  support to help students go beyond simply making claims. Students learn the Claim, Evidence,
  and Reasoning Routine in Chapter 1. This routine is used to practice verbal and written
  arguments for making claims about their scientific findings.

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.

- Grade 3 materials provide opportunities for students to construct and present developmentally appropriate written and/or verbal arguments that justify explanations of phenomena and solutions to problems using evidence acquired from learning experiences within the "Claims, Evidence, and Reasoning" (CER) activities throughout the chapters. The materials consistently present this routine in each lesson inside the "Explain" section. This framework comes back in each Lesson when students write their own claims for each essential question. After students read and underline parts of the shared reading text, they use the worksheet with sentence stems to organize their text evidence and write a supported claim.
- The materials provide students with the opportunity to justify explanations of phenomena in their "Hands-On Investigations". The materials guide students in the investigation and in answering questions with evidence from the investigation to show their understanding of the phenomena.
- The materials include "Show What You Know" activities that allow students to construct and present written and verbal arguments to justify explanations. The student checklist and rubric remind students to show their understanding by including science knowledge, and vocabulary words from the chapter, and making connections to their everyday life. Students use this checklist to construct posters, infographics, journal entries, or videos. In Chapter 4, students perform an interview, write a poem, or make a model to showcase their arguments relating to everyday energy.

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

# Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include "Ask" prompts throughout Chapters and Lessons to provide guidance
  of questioning to deepen student thinking. For example, in Chapter 5, the "Interactive Word
  Wall" feature uses the blue font to prompt teachers to "Ask" questions to help students build
  authentic connections to scientific terms and build upon current background knowledge and
  experiences.
- The materials provide teacher guidance on anticipating student responses and using questioning to deepen student thinking. In the Teacher eBook, every "Explore" section provides sample student answers, as well as guided questions to help students make their predictions, conduct their investigations, communicate their findings, and make their claims. For example, in a grade 3 lesson on the matter, materials provide questions the teacher can ask and suggestions for how to help build students' thinking. Questions include: "What do you notice on the window?" and "Why do you think there are water droplets outside the window?" Materials state that students should recognize that temperature changes matter. Before beginning the Investigation, the materials direct the teacher to make a prediction, "What would happen to a cup of ice when left out in the sun?"

- The materials provide questions with possible student responses in every "Evaluate" section. The teacher eBook supports anticipating student responses, including correct, incorrect, and partially correct responses, along with teacher guidance to help identify what the students understand and may not understand by their given responses. For example, in the grade 3 "Earth's surface and resources lesson," materials introduce students to rapid changes in Earth's surface. One of the questions the materials provided to help assess students at the end of the lesson in the "Evaluate" section is, "Audrey poured soil into a tilted tray to make a model of a hill. How could she use the model to show the two ways landslides usually occur?." The students are given five possible choices. The teacher materials provide the correct and incorrect choices, as well as an explanation of what students understand and do not understand by their chosen option. Such as, "A. Correct. Students understand that earthquakes can cause landslides." and "B. Incorrect. Students may not understand how to use a tray of soil to model a landslide."
- The materials provide teachers with possible student responses to questions and tasks. In the
  "Engage, Explore, Explain, Elaborate, and Evaluate" sections of each lesson, the materials
  include questions for the teachers to ask, followed by possible student sample answers in pink
  text. The materials include support for teachers to deepen student thinking through
  questioning.

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

- Materials also include a vocabulary prioritization section that breaks down each term by level of importance for student understanding during the chapter, such as "Lesson Vocabulary," "Supporting Vocabulary," and "Prior Knowledge [vocabulary]."
- The materials provide guidance for the teacher on how to support students' use of scientific
  vocabulary in context. For example, materials provide an "Interactive Word Wall" note to
  support the lessons in the Teacher's eBook. The note alerts teachers of exclusive opportunities
  for students to use scientific vocabulary in context. For example, when grade 3 students engage
  in a hands-on investigation about the effects of a landslide on buildings, materials stated in the
  "Interactive Word Wall" note that students can review and use the terms "model,"
  "advantages," and "limitations" when discussing their own model.
- The materials provide embedded support for the teacher in how to introduce and scaffold students' development of scientific vocabulary. For example, at the beginning of each chapter, there is a "Science Language and Content Acquisition" page. This page details what vocabulary the students should already know, what new words they will be learning, what "Scientific Engineering Practices and Themes" they cover, and strategies to encourage student vocabulary development.
- The materials provide embedded support for the teacher in how to introduce and scaffold students' development of scientific vocabulary. Vocabulary words are taught using various word-learning strategies, including word origin, word parts, multiple meanings, related words, context, Total Physical Response, and cognates.
- The materials provide guidance for the teacher on how to support students' use of scientific
  vocabulary in context. For example, materials provide a "Check for Understanding" sidebar
  support throughout modules in the Teacher's Guide. The sidebar support alerts teachers of
  opportunities for students to use scientific vocabulary to explain their thinking. In chapter 2
  students discuss how matter changes, the check for understanding as students demonstrate
  their knowledge of changes to states of matter using a cause-and-effect graphic organizer.

Possible responses could include heating and cooling as causes and ice melting, water boiling, evaporation (heating) and freezing, and condensation (cooling) as effects.

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

- Grade 3 materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims, as seen in the "Engage" activities throughout chapters and lessons, such as the "Essential Questions" and anchor phenomenon prompts. For example, in Chapter 3, Lesson 1, the anchor phenomenon includes a picture of a mother and child running with rolling luggage followed by a "Talk About It" prompt that guides teachers on how to start a class discussion in which students form claims to questions supported by evidence.
- The materials provide teacher support to prepare for student discourse. The materials include teacher preparation by setting up and reinforcing a class culture in which students are listening to and evaluating whether they agree with one another's ideas. For example, each lesson contains a "Talk About It" activity inside the "Engage" section that instructs the teacher to "As students discuss [...], encourage them to share ideas. Use sentence frames to promote independent thinking and respectful listening.", which is then followed by the sentence frames mentioned.
- The materials provide teacher questions for supporting student discourse and using evidence in constructing written and verbal claims. Questions push students to use evidence to support their claims in both written and spoken discourse. After every "Hands-On Investigation," the "Claim, Evidence, Reasoning" activity prompts teachers to ask questions, such as "What do you think?", "Why do you think that?" and "How does your evidence support your claim?" Teachers walk students through the process, and students develop their own claims and support them with evidence.
- The materials provide teacher support to prepare for student discourse. After completing an
  investigation to observe the changing physical state of ice as it melts in Chapter 2, materials
  direct teachers to prompt students to use their observations and measurements as evidence to
  classify and describe how the physical state and temperature change as the ice cube melts.

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

- Grade 3 materials include the "Hands-On Investigation" summary, expected outcomes, teacher
  tips, and investigation framework supporting and guiding teachers in facilitating the sharing of
  students' thinking and finding solutions. In Chapter 3, materials support and guide teachers in
  facilitating the sharing of student findings and conclusions throughout an investigation of every
  day pushes and pulls.
- The "Show What You Know" section guides teachers in facilitating student thinking and finding solutions. For example, after learning about the physical properties of matter in Chapter 2, the "Show What You Know" activity allows students to debate, create or draw an infographic, or start a text message with friends about matter. Questions to answer include: What did you learn about matter that surprised you? What can you make with matter? What substances would you like to learn more about? The rubric for scoring includes the following categories: shows an understanding of scientific knowledge, correct use of vocabulary, makes connections to everyday life, and activity is of high-quality writing, has clear organization, and shows creativity.

- Grade 3 materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions, as evidenced in the "Notebooking' feature. This feature supports teachers' efforts to promote the recording and sharing of progressive thinking and problem-solving throughout the content delivery.
- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. The materials help teachers facilitate the sharing of students' thinking and finding solutions by using the guided "Claim, Evidence, Reasoning" activities, which provide teachers with the organization and potential student answers for each "Claim, Evidence, Reasoning" activity in the lessons throughout the year.
- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. The materials provide a 5E model lesson with various strategies embedded in it. They also provide the Claim, Evidence, and Reasoning framework for students to follow. The materials provide projects like the STEAM Stations and STEM Projects. Students have multiple ways to show their thinking and understanding. In Chapter 2, after investigating the physical properties of matter, an engineering station called "Build a Shelter" directs students to combine materials to build a shelter for a small animal and present their designs to the class.

#### Indicator 6.1

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

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

# Meets | Score 2/2

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

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats. Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment. Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts. 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. Each lesson begins with a "Page Keeley Science Probe" that elicits students' misconceptions. Teachers can use this information to inform their instruction. Students revisit the probe to revise their answers and show their understanding. For example, in Chapter 4, Lesson 1, the Page Keeley Science Probe assesses students' ideas about describing light.
- Materials include formative and summative assessments in a variety of formats to measure student learning and determine the next steps for instruction. For example, one of the many formative assessments in every lesson is the "Claim, Evidence, Reasoning" activity, in which teachers can evaluate student performance by the sample answers provided with the teacher materials. Also, each lesson ends with a summative assessment in the "Lesson Review," including open-ended and multiple-choice questions. The teacher eBooks also provide sample answers to every "Lesson Review." For example, the Chapter 4 Lesson 1 Lesson Review assesses student understanding of light energy before continuing on to Lesson 2 materials.
- Materials include formative assessments for measuring student learning and identifying learning gains in a variety of formats. For example, each lesson contains "Quick Check" and "Check For

- Understanding" sections to assess students' understanding during the lessons. The materials include various ways of showing their understanding, like a graphic organizer or verbal response.
- Materials include summative assessments in a variety of formats. For example, each chapter
  contains an "Evaluate" section which includes a post-assessment for the lesson. Students
  answer multiple-choice and open-ended questions to show their understanding of the lesson.
  Each chapter also includes a "Chapter Wrap-Up" where students show their understanding of all
  of the lessons for a Chapter.

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

- Grade 3 materials assess all student expectations and indicate which student expectations are
  assessed, as seen in the "Plan Your Lesson" guide. In this section, the materials communicate
  the expectations for student learning and include the assessment opportunities associated with
  the content presented in each of the 5 E's (Engage, Explore, Explain, Elaborate, and Evaluate.
  The expectations outlined in the Plan Your Lesson feature are intentionally aligned with the
  TEKS and grade-level expectations.
- The materials indicate which student expectations are assessed. Materials provide the TEKS correlation for each assessment item and the answer keys for every assessment. For example, at the end of each chapter, the "Chapter Wrap-Up" includes a summative assessment in which each question is followed by a blue bubble that contains the student expectations assessed. Sometimes two or three standards are assessed in one question.
- The materials assess all student expectations, as outlined in the TEKS, by the grade level. The K-5 Scope and Sequence is TEKS-aligned and allows students to build background knowledge in a developmentally appropriate way. The Scope and Sequence is meticulously researched with the aid of experts, advisors, and Texas teachers to provide the necessary scope of topics for student success.
- In the "Teacher's Guide," the materials indicate how the materials align with the curriculum for
  the grade level in a manner easily identifiable by the teachers. The Table of Contents located in
  the front of the Teacher and Student Edition were researched with the aid of experts and
  advisors. Every chapter outlines how the knowledge and skills are taught in previous and
  upcoming grades.

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

- Grade 3 materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts, as evidenced in the "Evaluate Questions" within "Lesson Review" activities. The Lesson Review assessments evaluate students' application and understanding of scientific concepts, engineering practices, and recurring themes. For example, in the Chapter 4 Lesson 3 Review, question 1 is dual-coded and covers both the scientific and engineering practice 3.1E, "collect observations and measurements as evidence," and the content 3.8A, "identify everyday examples of energy, including light, sound, thermal, and mechanical. Questions are included to assess students' understanding in the "Build Your Skill" section. These questions integrate the content with science and engineering practices and recurring themes.
- Grade 3 materials include Claims, Evidence, and Reasoning (CER) writing assessment opportunities that integrate scientific concepts and science and engineering practices with

- recurring themes and concepts. Students apply and communicate scientific concepts, practices, and themes using the CER process throughout the lessons to demonstrate a thorough understanding by the conclusion of a lesson and chapter.
- The materials include assessments that require students to integrate scientific knowledge and science and engineering practices with recurrent themes appropriate to the student expectation being assessed. This assessment is inside each lesson, in the "Explore" section. For example, grade 3 materials include a "Hands-On Investigation" in which students compare weather changes in different locations at the same time. Students examine the weather at each location and record qualitative data. Students analyze data to make a claim about how weather can change in different locations even at the same time.
- The materials include assessments that require students to integrate scientific knowledge and science and engineering practices with recurrent themes appropriate to the student expectation being assessed. In each lesson, the "Elaborate" section contains a "Write About It!" assessment that integrates the scientific knowledge acquired during the lesson with the science and engineering practices. For example, in grade 3, a "Write About It!" activity requires students to research devices scientists use to observe comets and meteors to evaluate how well they help scientists. The teacher rubric for this assessment evaluates (1) students research devices used by scientists to observe comets and meteors, (2) students evaluate the devices, (3) students include scientific vocabulary, and (4) students use the vocabulary words correctly.
- Students are provided ample opportunity to engage in problem-solving to make connections across disciplines and integrate science concepts in the "STEAM Stations". In Chapter 2, an engineering activity called "Magnetic Treasure Hunt" asks students to design a solution to retrieve a magnetic treasure from the bottom of the lake and create a visual of their design. Students can integrate new science learning of magnetic properties of matter.

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

- Grade 3 materials include assessments that require students to apply knowledge and skills to
  novel contexts, as seen in the "STEM Connection Write About It" prompts. These prompts
  present recently learned scientific concepts, practices, and themes in a new context allowing
  students to apply acquired knowledge to a new phenomenon or situation.
- Grade 3 materials provide novel contexts for assessing student knowledge and application of newly acquired scientific content and skills within the "Evaluate Questions" within "Lesson Reviews" and "Chapter Wrap-Ups." Materials include questions aligned with grade-level TEKS and present concepts in a new way.
- Materials include assessments that require students to apply knowledge and skills to a new
  phenomenon or problem. The start of every lesson begins with an essential question. In the
  "Explore" section, students conduct a "Hands-On Investigation" where they apply their
  knowledge and skills to make a prediction about a particular topic related to this essential
  question, then They conduct their investigation and, after analyzing the collected data, students
  make claims about this new phenomenon or problem presented by the essential question.
- At the end of every chapter, the "Chapter Wrap-Up" includes a "Show What You Know" activity that requires students to transfer their knowledge and apply their understanding from the context presented in the lesson to a new situation. For example, a grade 3 "Show What You Know" activity requires students to produce a podcast, create a dance, or design a photo album for one of the following choices: (1) "How does learning about weather tools help you plan your day?", (2) "Use vocabulary words to explain what you learned about Earth's solar system", and (3) "How would you explain the Sun and Earth's orbit to a first grader?". The "Show What You

Know rubric" includes the following categories: shows an understanding of scientific knowledge, correct use of vocabulary, makes connections to everyday life, and activity is of high-quality writing, has clear organization, and shows creativity.

- The materials provide assessments that require students to apply knowledge and skills to new
  phenomena or problems in the "STEM projects" section. For example, the grade 3 materials
  include a "Community Garden" STEM project where students solve the problem of creating a
  watering system for a garden and apply their new learning to solve the problem.
- Materials include activities that require students to apply knowledge and skills to a new
  phenomenon or problem. STEAM Projects support students as scientists and engineers as they
  use scientific practices and engineering principles to complete the activity and deepen their
  knowledge through experiential learning. In Chapter 2, after investigating the physical
  properties of matter, an engineering station called "Build a Shelter" directs students to combine
  materials to build a shelter for a small animal and present their designs to the class.

#### **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	М
	responses.	
	Materials support teachers' analysis of assessment data with guidance and direction to	М
2	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,	М
3	intervention, and extension.	
	Materials provide a variety of resources and teacher guidance on how to leverage different	М
4	activities to respond to student data.	

## Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include information and/or resources that provide guidance for evaluating student responses, as seen in the exemplar answers provided for all "Student Edition Lesson Review" and "Chapter Wrap-Up Questions." These sample student answers inform teachers' evaluation of student understanding of content understanding and skill mastery based on the grade-level TEKS.
- Grade 3 materials provide 'Show What You Know rubrics" to guide teachers' evaluation of student responses. The rubrics serve as a resource to inform current student understanding of the content to inform instruction moving forward or assess mastery of grade-level TEKS expectations.
- Materials include information that guides teachers in evaluating student responses. Materials guide teachers to look for specific components when evaluating student responses. In each lesson, the "Elaborate" section contains a "Write About It!" assessment that includes a teacher rubric. For example, in grade 3, a "Write About It!" activity requires students to research devices scientists use to observe comets and meteors to evaluate how well those devices help scientists. The teacher rubric for this assessment evaluates (1) students research devices used by scientists to observe comets and meteors, (2) students evaluate the devices, (3) students include scientific vocabulary, and (4) students use the vocabulary words correctly.

- Materials guide teachers to look for specific components when evaluating student responses.
   For example, teachers are provided guidance on partial answers in rubrics for STEM projects.
   Every other chapter of the materials contains a "STEM Project" at the end of the chapter, as the project embeds multiple TEKS. Each STEM Project contains its own teacher rubric. The "Hands-On Investigations" includes sample answers for guiding questions and student activity pages in the teacher edition.
- Materials include information that guides teachers in evaluating student responses. The grade 3
  materials include sample student responses and follow-up questions in the "Explain, Elaborate,
  and Evaluate" sections. The "Lesson Review" in the Evaluate section also includes the rationale
  for the written answers.

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.

- Grade 3 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 as evidenced in the "Supporting All Learners"
  document. This document provides a Multi-Tiered System of Supports (MTSS) framework for
  teachers to guide their use of student performance data to support all learners in achieving
  content mastery.
- Grade 3 materials provide "Reinforce and Extend" activities with sample answer rationales to support teachers' analysis of data from student responses to evaluate all student needs and inform instruction moving forward based on student progress, including intervention and acceleration as needed. Teachers can view customized progress reports by skill and by student, as well as by class and grade level in the "Interactive Performance Reports" section of the platform.
- Materials provide guidance documents and resources to support teachers' analysis of assessment data. The materials provide on-demand professional development videos to show teachers how to examine data to provide a better understanding of student performance.
- Materials include assessment tools yield data that teachers can easily analyze and interpret. Scores are color-coded and can be sorted by standard. The scores can be shown by class average or by the student. Scores are color-coded to show levels of mastery by skill. For example, 0-59 is red, 60-69 is orange, 70-79 is yellow, 80-89 is light green, and 90-100 is dark green.
- Materials provide guidance and tools to support teachers in responding to data to inform
  instruction. Every lesson has an "Elaborate" section that includes a writing prompt (Write About
  It), with a rubric for the teacher's support. If students struggle to complete the writing prompt
  on their own, teachers assign the "Guided Write About It" for scaffolded support as a way to
  respond to individual needs.
- Materials provide guidance documents and resources to support teachers' analysis of
  assessment data. Materials provide a supplementary guidance document on data-driven
  instruction in science called "Supporting All Learners" which provides teachers with guidance
  and direction to respond to student's needs. Pages 3-6 provide UDL (Universal Design for
  Learning) information, which details how the program provides flexibility to accommodate
  individual learning differences.

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

- Grade 3 materials include assessment tools to support teacher understanding of student
  performance and inform the planning of instruction, intervention, and extension, such as the
  "Assessment and Reports" module. This tool allows teachers to track student performance
  based on activities, standards, and progress over lessons and chapters to support teachers'
  evaluation of student mastery, differentiation, and other supports.
- Grade 3 materials include assessment tools such as the "Page Keeley Science Probes" to support
  teacher understanding of student performance and inform the planning of instruction,
  intervention, and extension throughout the chapter. For example, in Chapter 4, Lesson 1, the
  Page Keeley Science Probe assesses students' ideas about describing light at the onset of the
  content delivery, followed by ongoing evaluation of student progress culminating in a final check
  of student understanding at the chapter's conclusion.
- The information gathered from the assessment tools helps teachers when planning differentiated science instruction. The "Standards Performance Report" shows overall and individual student performance data by the standard. On a computer-generated report, students are coded based on their performance. For example, 0-59 is red, 60-69 is orange, 70-79 is yellow, 80-89 is light green, and 90-100 is dark green. In the reports tab, teachers track and analyze data by standard or assessment to understand students' grasp of the concepts. Teachers see overall data and can consider the whole class or small group reteaching or review.
- The materials include "Pretests, Lesson Review assessments, and Chapter Wrap Up"
  assessments that provide teachers with data and information on what level of review or
  reteaching is necessary. The materials also provide a "Reinforce" prompt within each lesson
  where it would be appropriate to review or reteach certain parts of the standard.
- The information gathered from the assessment tools helps teachers plan differentiated instruction. Various differentiation Tips are noted at the Point of Use. "Reinforce" callouts are for targeted instruction and scaffolds for students who may need additional support. 'Extend" callouts for students who are ready for acceleration. Fast finisher notes in "Engage" are included. Additional callouts provide support for ESL students.

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

- Grade 3 materials include the "Guided Write About It and Guided Claim, Evidence, and Reasoning" (CER) activities, serving as resources to support teacher response to student data and understanding. Student performance on these tasks can offer insight to teachers on how to best leverage current student knowledge in achieving mastery of TEKS.
- Grade 3 materials include resources to guide teachers' understanding of leveraging different activities to respond to student data, such as the "Text Complexity in Science" document. This document provides an if, then, and monitoring framework to guide teacher efforts in leveraging current student performance in progress toward TEKS mastery.
- The materials provide a variety of teacher guidance for responding to student data. For
  example, the materials provide "Dr. Fisher's Text Complexity Strategies," which details many
  strategies to help students comprehend science texts. The document provides If...Then...
  scenarios for teachers to reference.

- Materials include an electronic data entry system that provides data reports on how to group students according to assessment results.
- Materials provide a variety of student resources for teachers to use in responding to
  performance data. Materials provide direct instruction of science concepts, followed by reviews
  that include discussions, reading and writing activities, hands-on investigations, and STEAM
  stations and projects.
- Materials provide a variety of teacher guidance for responding to student data. The Teacher's Edition includes tables that specify which activities in the program to assign students when they have difficulty answering assessment questions. The "Chapter Resource Snapshot" lists the various formative and summative assessments in each lesson, the online differentiation, and supports such as adaptive texts, leveled readers, and vocabulary resources. The 'Plan Your Lesson Page" outlines the activities for both teaching and assessment.

#### **Indicator 6.3**

Assessments are clear and easy to understand.

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

# Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include assessments containing items that are scientifically accurate, avoid bias, and are free from errors. For example, in Chapter 4, Lesson 3 Review, this assessment accurately evaluates a student's ability to understand that objects become cooler because thermal energy is removed, not because "cold" is applied. In Grade 3, Chapter 7, "Wrap up," accurately uses the word precipitation to describe rain and snow.
- Grade 3 materials use an example of the message sent and received through the light energy of
  traffic lights in the Chapter 4 summative assessment. Using a commonly experienced visual
  phenomenon expands the accurately applied scientific principle in this scenario to all students
  regardless of their background, language of origin, or other personal considerations that may
  impact a student's ability to learn. A Grade 3 summative assessment item accurately uses the
  term magnetism instead of metallic when describing the properties of objects.
- 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. Materials include performance tasks
  that present individuals of diverse backgrounds as scientists and engineers. A summative
  assessment uses the gender-neutral term chef when asking about temperature.

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

- Grade 3 materials provide assessment tools with clear pictures and graphics developmentally
  appropriate for the grade level, as seen in Lesson Reviews and Chapter Wrap-ups. For example,
  in Chapter 5, Lesson 1 Lesson Review assessment, materials utilize pictures of similar-aged
  children engaging in activities with motion, such as skateboarding and on scooters, as stimuli for
  questions and to evoke student engagement and application of content.
- Grade 3 materials utilize graphics such as a stop sign to signify to a student in a visual, ageappropriate way that they have reached the end of an assessment. Consistent use of familiar symbols, such as a stop sign, can promote student assessment navigation. An assessment question shows simple photos of common objects such as paper clips, colored pencils, and crayons.
- Assessment tools use clear pictures and graphics. For example, grade 3 assessment items about
  the orbit of the Earth and Moon contain pictorial representations that clearly show the
  difference in size and color of the planet and its satellite.
- The materials contain assessment tools that use clear graphics and pictures. For example, Chapter 3 "Wrap Up" in the Grade 3 materials, shows graphics that clearly show the different push and pull examples. Grade 3 assessment items include thermometers that clearly show a temperature in both Celsius and Fahrenheit. Chapter 9, "Wrap Up" in the Grade 3 materials, shows a simple food chain with clear arrows to show the movement of energy through the food chain.

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

- Grade 3 materials include a "Chapter Resource Snapshot," providing guidance to ensure
  consistent and accurate administration of assessment tools. In the Chapter Resource Snapshot,
  materials provide teachers with a listing of formative and summative assessments associated
  with each lesson to promote accurate administration of assessment tools. At the start of each
  lesson, in the "Plan Your Lesson" section, materials include clear guidance for teachers to
  efficiently administer the assessment, such as reminders or tips that give suggestions for the
  time allotted to complete the assessment.
- Grade 3 materials include "Assess" headers throughout, including suggested time designations and tips to accurately administer assessment tools. Some Assess tips include scripted prompts to guide administration.
- The materials include detailed information that supports the teacher's understanding of assessment tools and their scoring procedures. In every lesson, the "Evaluate" section of the Teacher's eBook includes an overview of the assessment, an answer key with an exemplar explanation for each choice, and the TEKS related to each tested item.
- Materials provide clear guidance for teachers to consistently and accurately administer
  assessment tools. Teachers are provided support on administering the formative and summative
  assessment items in the Teacher Edition for consistent administration. The on-demand
  professional development videos explain how to administer the online assessment and how to
  create and interpret the various reports from online assessments.

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

- Grade 3 materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals, such as scaffolding guidance for Claim, Evidence, and Reasoning (CER) "Check for Understanding" assessment opportunities. Materials utilize sentence stems and other guided writing tools suggested throughout, offering accommodations to CER assessments aligned to the TEKS.
- Grade 3 materials include "LearnSmart" tips offering accommodations for students who need
  more practice with concepts before "Chapter Wrap-Up" assessments. Using the LearnSmart
  feature, teachers assign reteaching resources to support students in demonstrating mastery of
  knowledge and skills aligned to learning goals stated within grade-level TEKS.
- Materials offer accommodations for assessment tools so that students of all abilities can
  demonstrate mastery of learning goals. For example, the materials include the "Supporting All
  Learners" document, which details how teachers can accommodate students on assessments. In
  grade 3 assessment items where students must use a table, materials provide visual cues using
  color-coded text.
- The online student materials offer built-in accommodations for students. For example, , the
  materials provide a text-to-speech feature so students can have the questions read to them.
  students can hover over the text using a speech symbol cursor and convert it into a digital text
  read aloud. The materials also include captions under their images to detail what is in the
  photographs and illustrations. Video clips use a closed-captioning feature to help all students
  see and hear scientific vocabulary in context.

#### **Indicator 7.1**

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

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

#### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include teacher guidance and additional resources to encourage exploration and application of grade-level science knowledge and skills in a variety of ways, including applying new learning to things such as project-based explorations. The "STEAM Stations" section in every lesson includes flexible options to provide enrichment activities for all learners.
- The materials provide the teacher the option of using guided or open inquiry when students complete the "Hands-On Investigation." This gives an additional option for exploration based on student needs and learner variability.
- The materials provide enrichment activities that account for learner variability. For example,
  each chapter includes a list of suggested readings called "Hook Them with Books!" to encourage
  all students to make connections, learn about the unit concept and standards, and integrate
  mathematical practice where applicable. The list includes titles in the "Leveled Reader Library"
  as well as titles of popular trade books.

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

- Grade 3 materials provide enrichment activities for all levels of learners, including "STEAM Station Options," designed to offer differentiated enrichment for all learners and incorporate STEAM activities connected to TEKS. For example, in Chapter 3, STEAM Station Options, materials provide four optional enrichment materials to engage students in discovering the concept of force.
- The materials provide enrichment activities that account for learner variability. Every lesson includes teacher guidance in the "Extend" section embedded in the "Elaborate" portion of the

lesson. This teacher guidance helps when extending activities for those students who have already achieved mastery. For example, in Chapter 2, after reading a STEM Connection passage about Mineralogist, the materials include probing questions to extend learning, "Why might it be important that a mineral such as vanadium does not rust easily?"

• The materials provide the teacher the option of using "Guided" or "Open Inquiry" when students complete the "Hands On Investigation." This gives an additional option for exploration based on student needs and learner variability, ranging from structured (for students needing additional support) to guided and open investigations for students capable of accelerated learning.

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

- Grade 3 materials include scaffolds and guidance for just-in-time learning acceleration for all students through Anytime Investigation Videos. These videos are available for student use as an early finish option to visually extend various concepts discussed, such as energy.
- Grade 3 materials provide Extend recommendations within Lessons to scaffold and accelerate learning for all students. For example, in Chapter 3, Lesson 1, materials guide teachers to challenge students to develop their own infographic to extend the learned concepts to a new setting.
- Materials provide scaffolds and guidance for just-in-time learning acceleration for all students in the different "Extend" notes provided inside the Teacher eBook. Such "Extend" notes can be found in multiple locations across each lesson, such as in the "Engage," "Explore," and "Explain" sections.
- The materials include recommendations for just-in-time scaffolds to develop productive
  perseverance in learning at the moment. The "STEAM Stations" sections embedded in every
  lesson include flexible options to provide acceleration activities for all learners, as well as
  support and resources for students who are ready to accelerate their learning.
- The materials provide recommendations for just-in-time scaffolds to develop productive
  perseverance in learning at the moment. For example, in the Engage section of the lesson, the
  materials provide teachers with question prompts, sentence stems, and other guidance to
  support them throughout the lesson. The materials also provide fast-finisher options as well.
- The materials provide support and resources for students ready to accelerate their learning. For
  example, throughout the lessons, there are EXTEND prompts for the teacher if a student is ready
  to move on. The materials also provide STEAM stations with extensions if students need that
  extension.
- Lessons provide support and resources for students ready to accelerate their learning. There are scaffolds and guidance for just-in-time learning acceleration in the Teacher Edition notes, Fast finisher notes in the ENGAGE section of the lesson are included, and various differentiation tips are noted throughout the teacher edition.

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

## Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include a variety of developmentally appropriate instructional approaches to
  engage students in the mastery of content, including the "Interactive Word Walls." This feature
  engages students in mastering grade-level appropriate vocabulary, leading to the understanding
  of concepts and skills when students click on the icon opening the term, definition, and visual
  representation.
- Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content. For example, the beginning of each lesson includes a "Page Keeley Science Probe" that engages students with a scenario that they consider and then return to later in the lesson.
- The materials engage students in the mastery of the content through a variety of
  developmentally appropriate instructional approaches. For example, materials include the 5E
  instructional model, which takes students through "Engage," Explore," "Explain," "Elaborate,"
  and "Evaluate" to support them in the mastery of content. Teacher materials routinely promote
  the use of the "Claim, Evidence, Reasoning" instructional approach in multiple sections of each

- lesson to engage students in the mastery of the content, as well as the scientific and engineering practices. Lessons also incorporate the use of the phenomenon.
- Materials engage students in the mastery of the content through a variety of developmentally appropriate instructional approaches. For example, materials include opportunities for students to engage in inquiry-based learning activities through the "Hands-On Investigations" in each Chapter. These authentic tasks require students to use tools to measure and collect data. For example, lessons include video clips introducing and reinforcing specific science concepts. Also, lessons present opportunities for student-led investigations, questioning, and discussions related to the student's course level.

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

- Grade 3 materials support flexible grouping options within the "STEAM Station Options" activities throughout all chapters. Materials suggest teachers utilize a range of groupings for these activities, from whole group introductions to small group or partner pairings and independent discovery followed by peer collaboration. Materials consistently suggest a variety of groupings, such as whole group, small group, partners, or one-on-one. The teacher materials include a "Materials List" where "Column H: Grouping" suggests the most appropriate student grouping for each activity in the lesson. Also, inside the Teacher eBook, the "Explore" section always includes a suggestion on the way to organize student groupings.
- The materials provide guidance to teachers on when to use specific grouping structures based on the needs of students. The materials provide suggestions for flexible grouping during instruction and small-group or partner STEAM Stations to provide ways for teachers to create the best learning environment for their students.
- The materials support a variety of instructional groupings (e.g., whole group, small group, partners, one-on-one). Lessons on core content and concepts are provided to the whole group. Suggestions are provided for small group or one-on-one practice and activities such in the "Hands-On Investigations", note taking, and reading activities. Grade 3 materials include the "Short on Time?" feature within each chapter, recommending options for approaching the "Hands-On Investigations" with varying group suggestions based on pacing or time allotment without diluting the students' experiences.
- The materials provide guidance to teachers on when to use specific grouping structures based on the needs of students. For example, the materials include lessons that the teacher can use to support concept acquisition for students who need additional one-on-one support. Point-of-use scaffolds, labeled "Reinforce," are found throughout the Teacher Edition for targeted instruction and scaffolds for students needing additional support. The "Chapter Resource Snapshot" also includes a sidebar titled "Program-Wide Differentiation," which lists other program components for acceleration or reinforcement, such as the "LearnSmart" and the "Science Literacy Essentials" reading tools.

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

 Grade 3 materials consistently support multiple types of practices and provide guidance and structures to achieve effective implementation, as seen in the "Hand-On Investigation" activities. Within these activities, materials offer options for completion, including structured with teacher modeling, guided with teacher support, and open, including opportunities for

- collaboration. Throughout these activities, materials provide examples, possible constraints, and other guidance to support implementation. Hands-on investigation activities with flexibility regarding "Open," "Guided', or "Structured Inquiry."
- The materials provide teacher guidance and structures for effectively implementing practices
  that require student collaboration. The materials start each lesson with a collaborative, handson activity. The teacher edition for this activity includes a note called "Science Mindset" that
  provides guidance for teachers to help students work both collaboratively and independently.
- The materials provide teacher guidance and structures for effectively implementing multiple types of practices. Materials state a clear purpose and learning goals for the group and independent practice activities contained in units and lessons. Early in the year, in Chapter 1, "Onward We Go," materials provide guidance to teachers on how to establish classroom routines that will lead to effective small group and independent work. Each lesson focuses on a key component of the program and lesson structure. Lessons include how to complete "Stem Connection" readings and build the interactive word wall, as well as routines for using science tools safely.
- The materials provide multiple types of practices to support students. For example, lessons include direct teaching, guided inquiry, collaboration with partners and groups, and independent work. Lessons include class discussions that include questions and guidance to facilitate opportunities for students to examine the results of their investigations. Students then independently complete a reflection using a Claim, Evidence Reasoning structure. The Lessons include opportunities for "Partner Share," "Argument Lines," "Two or Three Before Me," and various other strategies.
- Grade 3 materials include "Talk About It" features supporting opportunities for teachers to
  initiate, model, and guide class discussion while promoting independent thinking through
  collaborative debate. For example, in Chapter 3, Lesson 3, materials guide teachers to start a
  class discussion by having students consider multiple questions about the concept of falling,
  followed by a presentation of sentence stems as examples of how to think independently and
  discuss collaboratively.

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

- Grade 3 materials represent a diversity of communities in the images and information about people and places, as seen in the student introduction to "Mechanical Energy and Speed." In Chapter 5, Introduction, students view a cultural dance and consider the question, "What does mechanical energy have to do with dancing?"
- Materials represent a diversity of communities in the images and information about people and places. The materials include a "STEM Connection" in each chapter that features a diverse group of scientists, engineers, and STEM professionals from across the globe. Some examples are Chapter 1 features Marie Curie from Poland, Chapter 2 features Andres Manuel del Rio from Spain, and Chapter 5 features Yamilee Toussaint from Long Island.
- The "Page Keeley's Science Probes" resource, video clips, and images all represent a diverse group of scientists and engineers representing genders, races, ethnicities, abilities, religions, and national origins.
- Information in the Teacher Edition represents diverse people and places. A section called "Multiple Perspectives" creates purposeful dialogue opportunities for students to share elements of their home cultures. For example, in Grade 3, Chapter 4, Lesson 3, students are introduced to a clay tandoor, a clay oven used in Asia and the Middle East. Students have a discussion about how different cultures use thermal energy to cook in different ways.

#### **Indicator 7.3**

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

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

## Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include guidance for linguistic accommodations with various levels of English language proficiency as defined by the ELPS, as evident in the "Emergent Bilingual/English Learner Support" feature within each "Chapter Overview" section. This feature supports linguistic accommodations such as strategies to guide Beginning, Intermediate, and Advanced/Advanced High-level EB and EL students. Additionally, this feature within the materials includes transferable and non-transferable skills and cognates and false cognates to consider during instruction.
- The materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. The materials include guidance for linguistic accommodations at the beginning of each chapter inside the "Science Language and Content Acquisition" section. In that section, there is a page titled "Emergent Bilingual/English Learner Support" that supports teachers on how to activate students' prior knowledge, what are the transferable and non-transferable skills in the lesson, as well as a list of cognates and false cognates. This section also includes a table called "Targeted Strategies" that identifies the ELPS covered throughout the lessons. This includes supports such as photo cards, flow charts, graphic organizers, and other strategies that are aligned with the English level proficiency standards.
- Materials include teacher guidance for communication with Emergent Bilingual students, with
  the goal of creating comprehensible input. There are several instances where the materials
  include additional teacher guidance for linguistic accommodations to help build meaning and
  support language development, as well as elicit comprehensible input. For example, each lesson
  contains an "EB/EL Build Meaning and Support Language Development" in the "Lesson

Differentiation" section at the beginning of each lesson. This section provides explicit teacher guidance to provide students with differentiated language support when they use and reuse new scientific terms while speaking and writing about the lesson content in the "Elaborate" section of the lesson.

- Materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. The teacher edition embeds scaffolds for emergent bilingual (EB) students into lessons. Point-of-use Emergent Bilingual/English Learner tips help create an inclusive environment where all students can engage in science and engineering content while providing guidance on linguistic accommodations.
- Materials include callout boxes in purple titled "EB/EL Leveled support." The boxes clearly
  demonstrate ELPS connections by summarizing the content of the ELPS and their specific outline
  location administrative code. They also include differentiated support in that part of the lesson
  for three different levels: beginning, intermediate, and advanced/advanced high.

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

- Grade 3 materials encourage strategic use of students' first language as a means to linguistic,
  affective, cognitive, and academic development in English including the "Leveled Support"
  feature in the "Hands-On Investigations." Materials offer strategies for each language
  proficiency level student to utilize their first language to synthesize new information throughout
  each chapter and lesson.
- Grade 3 materials include transferable and non-transferable skills lists as well as cognates and
  false cognates to encourage strategic use of students' first language as a means to linguistic,
  affective, cognitive, and academic development in English. For example in Chapter 5, the
  materials feature the cognates mechanical energy/energia mecanica while also bringing
  teachers' attention to the false cognates (English: body- Spanish: cuerpo) (Spanish: bodaEnglish: wedding)
- Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English. At the beginning of each chapter, inside the "Science Language and Content Acquisition" section, there is a page titled "Emergent Bilingual/English Learner Support" that contains guidance for "Spanish Language Transfer." This includes support for transferable skills, non-transferable skills, cognates, and false cognates.
- Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English. Inside each "Explain" section of each lesson, there is an "EB/EL Promote Multilingualism" activity that provides guidance for the teacher to support and encourage the use of students' first languages during instruction, as well as develop, support and expand their acquisition of the English language.
- Materials encourage strategic use of students' first language to support development in English. For example, materials provide an "Interactive Word Wall," which details Spanish cognates and related words to support vocabulary development.
- Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English. Each chapter contains guidance for Spanish Language Transfer. This chart includes support for transferable skills, non-transferable skills, cognates, and false cognates. Materials also include "Lesson Differentiation" support features.
- Point-of-use Emergent Bilingual/English Learner (EB/EL) teacher support encourages the use of students' first languages during instruction. Some of these sidebars titled "Promote Bilingualism" include tips for teachers about allowing students to express their understanding in

their first language and practical suggestions for teachers who do not speak the student's first language. For example, in Grade 3 Chapter 2, this callout box says, "Afford students opportunities to use their home languages while acquiring proficiency in English." and is tagged ELPS 1A.

#### **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	М
	the program.	
2	Materials provide information to be shared with caregivers for how they can help reinforce	М
2	student learning and development.	
3	Materials include information to guide teacher communications with caregivers.	М

# Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include Chapter 1: Onward We Go, providing information to students and caregivers about the design of the program, including sections such as "STEM Connections, Science Notebooks, Learning the Routine, Descriptive Investigations, Science Skills, Tools and Safety, Build Your Skill, Engineering Design Process, Models and Visuals, and Data Literacy."
- The materials provide information to be shared with caregivers about the design of the program. Teacher materials include a "Letter to Home" for each chapter of the materials with information the teacher can share with their students' caregivers. Each letter details the standards being taught and how the adult may support that at home. In Chapter 1, the Letter to Home provides information about the design of the program. It begins with, "This program design features a 5E Instructional Model. Each chapter is divided into five sections that provide structure to our daily routine: Engage, Explore, Explain, Elaborate, and Evaluate." Chapter 4 provides relevant information about the design of Chapter 4 to students and caregivers regarding Everyday Energy.
- The materials provide information to be shared with students about the design of the program.
   Chapter 1 explains the different lesson components and activities, including all the chapters and lessons, as the reasoning behind the activities themselves. For example, the first "Talk About It" activity explains that this is a partner or small group activity, and that "learning from and collaborating with others is important in science."
- The materials provide information about the design of the program in Chapter 1. Students learn what the components are as they are completing activities. Students learn what certain symbols mean. Students also are introduced to the "Claim, Evidence, Reasoning" process and "Hands-On Investigation" processes. In Chapter 1, the materials include information about the program

design that is shared with students. Students are introduced to the "Talk About It" icon and the "Notebook" icon to learn what to expect each time they see them in the Student Edition. They connect the visual cue of the Talk About It icon to opportunities for student discourse. They connect the visual cue of the Notebook icon to opportunities to record their observations in their Science Notebook.

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

- Grade 3 materials include a reminder for School-to-Home Resources such as the "Letter to
  Home," which provides information to be shared with caregivers in regard to current content to
  reinforce student learning and development. For example, in Chapter 3, Chapter Overview,
  materials prompt teachers to distribute the Letter to Home to support caregivers with
  conversation starters, games, or other ways to engage families in content.
- Materials provide resources and strategies for caregivers to help reinforce student learning and development. Teacher materials include a "Letter to Home" for each chapter of the materials with information the teacher can share with their students' caregivers. The second page of each letter details both sample "Conversation Starters" as well as a "Family Activity" for caregivers to help reinforce student learning and development. For example, in the chapter 2 letter about matter, one conversation starter is "How do heating and cooling change matter?"
- The Grade 3 materials provide at-home prompts and activities for caregivers to reinforce student learning and development. For example, the materials include the EB/EL "Engage Home to Enrich Instruction" within the lessons to give Emergent Bilingual students reinforcement at home.
- Materials provide at-home activities for caregivers to help reinforce student learning and
  development. Each letter includes activities that a family could do together to reinforce
  learning. For example, in Chapter 2, families can do an activity to help students use the scientific
  process to discover the state of matter. They make predictions about what will happen if they
  heat ice cubes in a pan, and the letter includes discussion prompts during and after the
  experiment. Another bonus activity is to create root beer floats and discuss how root beer is a
  mixture of liquid and gas and that when you add ice cream, you also have a solid.

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

- Grade 3 materials include Emergent Bilingual/English Learners teacher prompts to guide teacher communication with caregivers. For example, in Chapter 3, Lesson 3, teachers are encouraged to assign homework to have students tell their families about the day's pebble experiment in the EB/EL Engage Home to Enrich Instruction notes.
- Teacher guidance materials include information on engaging caregivers as partners in learning.
  In the "Elaborate" section of multiple lessons, there is an "EB/EL Engage Home to Enrich
  Instruction" activity that encourages both teacher and students to engage the caregivers in the
  learning. These sidebars include a related activity students can complete at home, such as
  observations or family interviews, which involve families in the current science topics.
- The materials include teacher guidance for communicating with caregivers. For example, the "Letter to Home" printouts in each chapter are written easily for all caregivers to understand. The letter includes guidance for conversation starters at home.
- Materials include teacher guidance for communicating with caregivers. The materials include the "STEM Projects with a Home Connection" section that has information to guide teacher

communication with caregivers. One letter includes the prompt, "How can you describe what you did today to someone in your life?" The materials include a grading rubric with student reflection for each STEM Project that can be sent home after the completion of the project. Grade 3 materials include information to guide teacher communication with caregivers as seen in the "STEM Project" Teacher resource pages, which include a "Home Connection" suggestion. In the "Speed Rolling STEM Project," teachers are guided to communicate to parents that students can apply their learning by creating toy cars for younger siblings or friends and discuss the process they used to design their sled.

#### **Indicator 8.1**

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

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

## 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.

- Grade 3 materials provide a Table of Contents outlining the TEKS-aligned lessons in each
  chapter. Additionally, the "TEKS at a Glance" page at the start of each Chapter Notes within the
  Teacher's eBook shows which TEKS are addressed in each lesson. The chapter overview includes
  a TEKS progression chart that reviews what students have learned in the two previous grade
  levels and how it will connect to the next grade level. The TEKS at a Glance outlines year-long
  instructional plans.
- Materials include a year-long scope and sequence within the "Pacing Guide." Materials guide teachers with suggested time-frames for units and lessons and their TEKS alignment.
- Materials provide a TEKS Correlation and TEKS-aligned scope and sequence that include a
  detailed list of investigations and activities that align to each standard in teacher and studentfacing materials.

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

Grade 3 materials include a Chapter Language and Content Acquisition to offer guidance for
facilitating student-made connections across core concepts, scientific and engineering practices,
and recurring themes and concepts. For example, the teacher's attention to the specific
recurring themes is featured in each lesson. Materials guide teachers to facilitate connections of
SEP and content with the Interactive Word Wall.

- Materials include resources to support teachers in facilitating student-made connections. An
  anchor chart for the classroom shows connections across all TEKS, and a completed cause-andeffect anchor chart supports connections across core concepts and recurring themes and
  concepts. The grade 3 Teacher eBook also includes a chart listing "Scientific and Engineering
  Practices and Themes" at the beginning of each chapter to support teachers in facilitating
  student-made connections.
- Materials provide guiding questions that teachers can use within lessons to facilitate student-made connections throughout the year. For example, in Chapter 3, Lesson 3 "Objects and Gravity," the teacher is provided with the essential question, "How does gravity affect objects?" Similarly, in Lesson 4, "Objects and Magnetism," instructs the teacher to ask students, "How do magnets affect objects?"
- Each grade 3 lesson allows for student-made connections across activities and experiences, core
  concepts, and SEPs in the Explore component. Within the section titled "Open Inquiry," teachers
  are provided with questions guiding student thinking while taking part in SEP. For example,
  when developing a testable question, students are asked, "Can the question be investigated
  through research, observation, modeling, and/or experimentation?"

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

- Materials include review and practice of knowledge and skill application throughout the year
  through spiraling of previously taught knowledge and skills from earlier lessons/grade levels and
  the current lesson's science knowledge and skills. The Interactive Word Wall connects core
  science ideas from investigations to vocabulary for a deeper understanding of the TEKS. This
  feature spirals content vocabulary and offers suggestions for differentiation to support mastery
  and retention.
- For example, in Chapter 3, Lesson 1, students learn the effects of gravitational pull, causing rocks to fall downhill. This knowledge is later spiraled to include landslides as a cause of rapid changes in Earth's surface in Chapter 4, Lesson 2.
- The grade 3 Teacher eBook includes a chart with a list of "Prior Knowledge" at the beginning of each chapter. This list intentionally connects previously taught knowledge to the current chapter's science knowledge and vocabulary. The practice opportunities build on previously taught science knowledge and skills. In Chapter 3, Lesson 2, students apply previous learning of forces acting on objects to be able to conduct an investigation on how gravity affects objects.
- Each Chapter Overview includes a chart depicting the TEKS Progression across grade levels. This
  demonstrates opportunities to build on previously taught science knowledge and skills. The "Get
  Ready" section includes a chart depicting the progression of the TEKS across grade levels. It also
  contains a Chapter Pretest that demonstrates intentional practice and spiraling of previously
  taught knowledge and skills from earlier grade levels.
- The materials include spiraling recurring themes and concepts within lessons throughout the chapters. For example, students can revisit and explore stability and change using a graphic organizer in Lessons 2.3, 6.2, and 9.2.

#### **Indicator 8.2**

Materials include classroom implementation support for teachers and administrators.

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

# Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include teacher guidance for use of all materials and sections in the Program Overview PDF online under "Getting Started." This component specifically supports teachers and administrators by including visual displays of material contents with descriptive captioning describing options for implementation. For example, there are at-a-glance suggestions of how to incorporate Interactive Word Walls, a research-based instructional strategy, within the physical classroom environment as well as digital experience options.
- Grade 3 materials include the "Plan Your Lesson" component that offers teacher guidance and recommendations for using all materials within each lesson throughout the year. This component includes recommendations for incorporating texts, enrichment activities, embedded technology, and scaffolds, among other indicator requirements.
- The materials also include PDFs of a pacing guide, a "Supporting All Learners" document, and tips to prepare for instruction. The grade 3 materials include enrichment activities and scaffolds in the sidebars. These include Emergent Bilingual supports, STEAM stations for enrichment, and cognates and graphic organizers in the "Interactive Word Walls" section.

Materials contain links to embedded technology in the Teacher's eBook as options for teachers
to use to support and enhance student learning of science concepts that show concrete
alignment to the appropriate TEKS.

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

- Grade 3 materials include a "Correlation to TEKS" document providing TEKS correlations
  pertinent to the grade-level context. This document anchors TEKS connections to the material's
  activities throughout the year and outlines in which investigations these TEKS are utilized.
  Materials include a chapter overview in "TEKS at a Glance," where the TEKS are aligned to each
  chapter and between lessons. The materials also show the teacher the TEKS vertical alignment
  and prior knowledge the student should have with the "TEKS Progression" section at the
  beginning of each chapter.
- Grade 3 chapters are organized in lessons. The chapters include a Chapter Overview, which
  showcases how lessons are organized by phenomena and problems. The Teacher's eBook for
  each lesson presents a question, a description of the lesson objective, and common
  misconceptions students might show in their explanations or solutions. The Teacher's eBook
  also includes the grade-level standards that correlate with learning within the chapter, the
  standards from earlier grades that provide a foundation for the unit, and the standards for
  subsequent grades for which the concepts being learned are foundational for vertical alignment.
- The materials provide teachers with cross-curricular correlations for the entire year. The correlations are sorted by ELAR, Math, Technology, Art, and Music standards. For example, the ELAR standards are embedded within the "Launch with Literature," "Book Clubs," "Guided Write About It," and "Spotlight on Reading" sections within the chapters. The Teacher Planning Resources include a comprehensive list of all the cross-content standards within the materials, as well as their location both in the Teacher's eBook and the student eBook.
- Grade 3 materials include a STEAM Stations Options section within the Teacher eBook that
  provides cross-content standards, explaining those standards in the context of the grade level.
  For example, a Spotlight on Reading activity includes a correlation between Science TEKS and
  Language Arts TEKS 3.6E and 3.8C.

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

- Grade 3 materials include a "Get Ready" component at the beginning of each 5E section of the lesson. In the Get Ready component, all equipment and supplies, including texts, videos, graphic organizers, and other supplies, are clearly listed to support all instructional activities.
- Grade 3 materials include an appendix with a comprehensive list of all hands-on investigations in each chapter and lesson. This appendix, "Hands-On Investigation Library," is found under "Investigation Support and Projects." The quantity of materials needed is listed, as well as whether the materials are consumable. When the Hands-On Investigation is presented in both the teacher and student eBooks, a list of materials needed for the activity is included.
- Grade 3 materials provide teachers with a Chapter Resource Snapshot in each chapter that
  details what materials and technology will be needed for each lesson. For example, the Chapter
  7 Snapshot details that a thermometer, rain gauge, wind vane, weather maps, and clay, among
  many other materials, will be needed for the investigations.

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

- Grade 3 materials include a "Tools and Safety Handbook" as an eBook. The eBook includes images of each tool and a video of how it is used as a visual reference for students. It also includes definitions of the safety symbols that are used to complete investigations.
- Grade 3 materials include a "Safety Symbols" one-page PDF document featuring pertinent symbols and meanings in a grade-level appropriate way. For example, a scissor symbol represents a sharp object hazard. The symbols are referenced in the investigations throughout the lessons. This document offers a specific hazard consideration and a precautionary measure for each symbol in a grade-level appropriate language. This document can be found online under "Investigation Support."
- Grade 3 materials provide teacher guidance for safety practices and grade-appropriate use of safety equipment during investigations, in accordance with Texas Education Agency Science Safety Standards. It directs teachers to review all information prior to beginning the investigation.

#### **Indicator 8.3**

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

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

# Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Grade 3 materials include the "Plan Your Lesson" component. This pacing guide includes specific time parameters for each activity, supporting scheduling considerations and recommendations for time when planning. The materials provide realistic timeframes for activities and routines within each lesson, as well as options for a variety of scheduling considerations, such as "Short on time?" or "Have 15 minutes?" The materials provide scheduling recommendations for each part of the lesson throughout all of the chapters. For example, Chapter 7, Lesson 1, Day 1 allots 45 minutes for the entire lesson: 35 minutes for the teaching portion, which breaks down into smaller chunks of 2–3 minutes, and 10 minutes for assessing.
- Grade 3 materials provide a "Chapter Resource Snapshot" outlining the pacing of content
  delivery. This feature supports scheduling considerations for each lesson of the chapter,
  providing day ranges and minutes included within lesson outlines. The Chapter Resource
  embeds acceleration and extension options, allowing students to learn at an accelerated pace.
- Grade 3 materials provide "Key Moments" throughout the lessons. If the teacher is short on time, it gives guidance on the main parts of the lesson to focus on.

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

Grade 3 materials include a complete Table of Contents to guide the strategic implementation
of content in an appropriate sequence without disruption. The Table of Contents clearly displays
the intended order of content delivery aligned with grade-level TEKS.

- Grade 3 materials provide a "Chapter Launch," including strategic implementation without disrupting the sequence of content following developmental progression. For example, in Chapter 5, Chapter Launch offers predictable lesson segments such as Get Ready, Teach, and Assess sections to guide strategic implementation and progression of instruction.
- Grade 3 materials provide guidance for strategic implementation that ensures the sequence of
  content is taught in an order consistent with the developmental progression of science. The
  Chapter Overview supports teachers in identifying the developmental progression of content
  and skills across grade levels to ensure that students are supported with instruction organized to
  optimize their learning. The materials include a TEKS correlation guide that details the
  implementation of content with a specific order that builds on the standards. Certain chapters
  are grouped together with similar recurring themes and ideas.
- The "TEKS at a Glance" provides teachers with a brief overview of the sequence of the content in each chapter, including the content TEKS, Scientific and Engineering Practices, and Recurring Themes and Concepts. This resource considers the interconnections between the content standards, the Scientific and Engineering Practices, and the Recurring Themes and Concepts. Materials purposely group lessons together into chapters that have similar recurring themes and ideas, making it easier for students to connect scientific knowledge.
- Materials provide guidance for strategic implementation that ensures the sequence of content is taught in an order consistent with the developmental progression of science.

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

- Grade 3 materials provide a Key Moment within the proposed lesson pacing guide that offers options for adjustment of minutes if needed without impacting content delivery. This feature ensures material content is delivered within the school year.
- Grade 3 materials include a "Pacing Guide" document within the Resources tab to outline the content pacing suggestions as well as noting the total days needed to complete content. This guide also refers to the built-in extension and reduction options for flexibility. The grade 3 materials provide enough lessons and chapters to cover a full school year with 180 days of instruction. For example, the Pacing Guide document says it is a general guide, and the number of days may vary. This guide provides a high-level snapshot of completing the course in one school year, with flexibility given for reteaching, projects, and assessments.
- Grade 3 materials provide guidance for adjusting instructional time due to scheduling
  constraints. Plan Your Lesson provides teacher guidance on how to make adjustments to extend
  or condense lessons within the Teacher's eBook at the beginning of each lesson. In the event
  that scheduling needs to be shortened due to lack of time, materials provide two flexible
  options: Short on time? and Have 15 minutes?

#### **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	Yes
	does not distract from student learning.	
2	Materials embed age-appropriate pictures and graphics that support student learning and	Yes
-	engagement without being visually distracting.	
2	Materials include digital components that are free of technical errors.	Yes
3		

#### **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.

- Grade 3 materials include an appropriate amount of white space and a design that supports and
  does not distract from student learning, as seen in the digital student ebook and supporting
  resources. The digital materials adhere to the guidelines in the TRR Digital Design Guide. For
  example, in the Grade 3 Student eBook, there is a clear title, subheadings, underlined
  vocabulary words, hyperlinked definitions for the vocabulary words, and an interactive
  infographic. The materials include an appropriate amount of white space, and the design does
  not distract from student learning. The digital content displays well on multiple devices.
- Grade 3 materials are designed to support student learning free of distraction by formatting
  materials in a strategic way, utilizing headers and imagery to support content delivery. For
  example, materials include attention-provoking headers such as "Take Note!" to prompt student
  participation in note-taking and record-keeping during a video presentation.
- Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. Student materials are appropriately designed to support student learning. Student materials include the following: A clear main subject, topic, or purpose; titles and headings are prominent and clear; sections are marked with subheadings. The content is organized in a logical progression.
- Student Digital Tools for 3rd grade can annotate text (such as highlight, strikethrough, underlining, boxing text, etc.) and pointers while reading digital text. The materials include readaloud supports, vocabulary supports, and playable videos. When text is read aloud by the computer, a mark appears next to each sentence as it is read.

• Teacher guidance materials are appropriately designed with clear, designated places for important information. Teacher's Guides are designed so that teachers can locate important information easily for planning and implementation.

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

- Grade 3 materials include age-appropriate pictures and graphics throughout the chapters and
  lessons, supporting student learning and engagement without being visually distracting. For
  example, in Chapter 3, the materials embed images of parks, toys, and other common examples
  for students to apply their understanding of the concepts of forces. In another example, on p.
  182 in the Grade 3 Student eBook, the materials provide detailed, up-close pictures of different
  soil types. The visuals are clear and do not include other distractors, so students can focus on
  the different types.
- Grade 3 materials embed infographics to extend learning and support engagement during
  content delivery, as seen in the Explain activities and other tasks. For example, in Chapter 3,
  students utilize an infographic to apply newly acquired knowledge about the application of
  forces.
- The materials include age-appropriate pictures and graphics that support student learning and engagement. Grades 3-5 materials embed diagrams that clearly show steps to a process, such as the changing states and comparing densities of liquids. Graphics show a distinct progression from one stage to the next.

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

- Grade 3 materials include digital components such as the "PDF Hands-On Investigation Library,"
   "Interactive Word Lab," and other features to maximize student access and engagement during
   content delivery. Upon review, these components were free of technical errors and successfully
   displayed materials and features as intended.
- Student materials include digital components that are free of technical errors. Materials are free
  of spelling, grammar, and punctuation errors. Student materials are free of inaccurate content
  materials or information.
- Teacher materials include digital components that are free of technical errors. The teacher
  materials are free of wrong answer sheets to problems. Materials are free of spelling, grammar,
  and punctuation errors. The materials are free of inaccurate content materials or information.
  Materials are free of wrong answers to discussion questions, worksheets, and writing prompts.
- The materials state the program was written by expert authors based on the TEKS, reviewed and proofread by internal teams, then quality assurance and fact-checked by subject matter experts. It has also been reviewed by advisory boards with Texas educators.

#### **Indicator 9.2**

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

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

#### **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 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.

- Grade 3 materials include digital components such as "Personalized Learning" tools like the
  "LearnSmart" reading library and the "WordLab" to build vocabulary. The materials include
  digital word labs embedded within student ebooks to promote student learning and
  engagement. Students click on the "Word Lab" icon to directly access interactive features that
  connect terms found within the "Explain" articles with images and definitions to support student
  understanding of scientific vocabulary throughout the materials.
- Grade 3 materials include digital options for administering assessments integrating digital
  technology and tools that support student learning and engagement. For example, Chapter 4,
  "Wrap-Up," is featured in the "Digital Spotlight," recommending teachers assign the same
  Wrap-Up assessment online to promote student engagement, customization, and use of digital
  grading tools.
- The materials provide a Teacher's Guide, which details all activities and lessons with optional
  time for pacing purposes. The Teacher's Guide also contains a sidebar, "Digital Spotlight," which
  shows teachers what they can assign students through online platforms to further their learning.
  The Grade 3 materials provide teacher guidance, including suggestions for time and pacing, and
  ways to assist students with making observations, asking questions, collecting data, and
  participating in discussions.

The materials integrate digital technology and tools that support student learning and
engagement. For example, Digital technology and tools enhance student learning through such
features as "Chapter Launch Videos," Lesson "Engage" videos, "Anytime Investigation Videos,"
and "Recurring Theme and Concept Music Videos." The student eBook contains embedded tools
such as read-aloud, variable font size, built-in dictionary, and highlighting. The embedded
technology within materials supports the print and does not replace it.

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

- Grade 3 materials integrate digital technology to support student engagement with the science
  and engineering practices, recurring themes and concepts, and grade-level content, such as
  interactive infographics that allow students to apply newly learned content and recurring
  themes as outlined in the TEKS.
- Grade 3 materials provide students access to virtual simulations to directly observe content and
  recurring themes "in action." By incorporating digital technology such as virtual simulations,
  materials support student engagement with the science and engineering practices, recurring
  themes and concepts, and grade-level content aligned with TEKS. For example, grade 3
  materials include a video, "Swimpressive Structures," to show students the structure of a turtle
  swimming. The students watch the video, then answer questions regarding the recurring theme,
  structure, and function, and use a graphic organizer to assist them.
- The materials integrate digital technology to support student engagement with science and engineering practices, recurring themes and concepts, and grade-level content. For example, in Grade 3 materials, a simulation is provided for students to learn how soil is formed. Students complete the simulation, observe the changes, and record and analyze the data. The materials provide real-life photographs before and after the eruption of Mt. Saint Helens for students to see how they changed the shape of the landscapes. Students analyze the differences observed and discuss the causes and effects of the eruption to support their explanations.
- The materials integrate digital technology to support student engagement with science and engineering practices, recurring themes and concepts, and grade-level content. The materials have embedded multimedia digital resources such as interactive eBooks, "Investigation Simulations," "Virtual Field Trips," interactive infographics, and videos.

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

- Grade 3 materials include "Engage" videos to introduce a scientific phenomenon featuring scientific principles aligned with the content learning goals as outlined in the TEKS. These videos serve as a digital technology tool, providing opportunities for teachers and/or students to collaborate.
- Grade 3 materials include digital technology such as the provided "Presentation Slides' providing opportunities for teachers and/or students to collaborate regarding visual stimuli and/or guiding questions within presentations.
- Materials integrate digital technology that supports teacher-to-student collaboration. Materials provide an online collaborative platform in which teachers and students can post assignments, and give immediate feedback to students.
- Grade 3 materials integrate digital technology that provides opportunities for students to collaborate. The materials provide interactive materials for the students to work collaboratively

in pairs or teams. The materials provide "Talk About It" prompts encouraging students to talk to their group or partners. For example, in Lesson 5.1 in the Grade 3 materials, students watch a video, think about the essential question and then are given a "Talk About It" prompt to discuss with their classmates.

 The materials integrate digital technology that provides opportunities for teachers and/or students to collaborate. Materials provide interactive games and quizzes students can complete collaboratively in pairs or teams. The publisher has collaborated with the online quiz site, Kahoot! to enhance learning with premade activities and topic reviews. Materials will support other collaborative tools the district utilizes through an LTI (Learning Tools Interoperability) integration, such as Google.

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

- Grade 3 materials integrate digital technology compatible with a variety of learning management systems (LMS) such as Google, Classlink, Canvas for SSO, and other commonly used educational platforms.
- Student and teacher digital materials are accessible and compatible with multiple operating systems and devices. The materials are accessible online through any device with internet access.
- Materials are accessible and compatible with multiple operating systems and devices. For example, the materials are accessible and compatible with Chromebooks, iPads, Android Tablets, PCs, and Apple Computers. The operating systems needed are Windows 10+, Mac OS X v12+ (Monterey), Chrome OS v104+ (4 GB RAM), iOS 15+, and Android 13+ (Tiramisu). Mobile devices require iOS 15+ or Android 13+ (Tiramisu).
- To use all functions of digital programs effectively, you must use an updated web browser. The
  materials currently support the following browsers and versions: Google Chrome 104+, Mozilla
  Firefox 104+, Apple Safari 15+, and Microsoft Edge 104+.
- Digital materials are accessible with or without internet access. Students log in to access materials when they have an internet connection. If there is no internet access, materials can be downloaded beforehand so they are still accessible.

#### **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	Yes
1	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	Yes
2	enhance student learning.	
	Materials are available to parents and caregivers to support student engagement with	Yes
3	digital technology and online components.	

#### **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.

- Grade 3 materials include digital technology and online components developmentally
  appropriate for the grade level and align with the scope and approach to science knowledge and
  skills progression as evidenced by the incorporation of basic click icons to access digital
  components embedded within student materials. Materials provide a rationale for the ageappropriateness of digital and online components in the document "Supporting All Learners:
  Equity and Access in Science." Included are rationale within the "Program Overview," which
  details what is included and why.
- Grade 3 materials include online assessment components with age-appropriate navigation
  guidance to support students when attempting to demonstrate mastery of grade-level content
  and skills aligned with TEKS. The materials provide related TEKS and ELPS for online and digital
  components within the Teacher's Guide. The materials provide related TEKS for online and
  digital components within the Teacher's eBook in the "TEKS at a Glance."
- The materials include technology and online components aligned with the grade-level scope and approach to science knowledge and skills progression. For example, the materials provide the "Cross Curricular Correlations" document, which details the digital technology standards aligned with the program.

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

- Grade 3 materials provide teacher guidance for the use of embedded technology support, such as "how to" videos. For example, a Page Keeley Video is featured in a "Digital Spotlight" offering guidance to best implement a particular strategy. In the Grade 3 materials, the teacher's guide includes "Digital Spotlight" sidebars, which guide teachers in assigning or showing online materials. The sidebars continue throughout the lessons with optional resources based on how much time the teacher has. Additionally, materials include professional development videos, tutorials, and bite-size, on-demand support for teachers to continue to develop their skills and knowledge in using the embedded technology to support and enhance student learning.
- The materials provide specific teacher guidance for embedding the technology within lessons
  and assessments. Materials include best practices for using embedded technology for
  differentiating instruction, using technology to promote collaboration, and incorporating
  multimedia resources into lessons. Materials include a rationale for balancing paper-and-pencil
  activities for fine motor skills development with technology use.
- The materials provide specific teacher guidance for embedding the technology within lessons and assessments. For example, the materials provide teacher guidance for digital and online assessment tools within each "Evaluate (Day 5)" day. The guidance includes how teachers can review and assess within the digital platform.
- The materials provide specific teacher guidance for embedding the technology within lessons
  and assessments. The materials provide recommendations for teachers on which days to use
  technology with students and if there is a time during lessons when the technology would
  enhance or support student learning. Materials outline recommendations in the "Chapter
  Resource Snapshot" and the "Lesson Overview Pages."

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

- Materials provide teachers with the Communicating with Caregivers Guide. This resource
  provides a letter to families that advises them to use McGraw Hill's Digital Technical Support for
  accessing and engaging with digital content.
- Online materials include a section specifically for families with information about science objectives, conversation starters, and family activities, but it does not contain any links or online resources.
- Materials include resources for parents and caregivers on supporting student engagement through a letter to families for each unit, including a family activity they can choose to complete.
   Parents can also access digital student resources using their student's credentials.