# **McGraw Hill Texas Science Grade 2 Executive Summary**

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

Grade	TEKS Student %	TEKS Teacher %	ELPS Student %	ELPS Teacher %
Grade K	100%	100%	100%	100%
Grade 1	100%	100%	100%	100%
Grade 2	100%	100%	100%	100%

#### Section 2. Instructional Anchor

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

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

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

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

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

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

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

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

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

- Materials provide multiple opportunities for students to develop and practice scientific and engineering practices through the Hands-On Investigation activities listed in every chapter of the Teacher eBook: Grade 2. For example, students observe and explain how objects may change shape when they push on each other. This activity is one of many hands-on investigations that provide opportunities to master grade-level scientific and engineering practices as outlined in the TEKS. Another example can be found in Chapter 6, where the students conduct an investigation over a 5-day period collecting information regarding the weather. Students use a thermometer and rain gauge to record the temperature and measure the precipitation.
- Materials provide students multiple opportunities to work towards mastery of SEPS through Build Your Skill pages. For example, in the Interactive Student eBook, students are asked to

communicate explanations while observing changes to physical properties. In Chapter 6 of the Open Inquiry section, students write their own questions to explore and plan their own investigation. The materials prompt the teacher to ask, "What questions did you have when you observed the photo of the tornado?"

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

- Materials provide multiple opportunities to make connections between and within overarching concepts using recurring themes. The correlation to the grade 2 TEKS guide includes specific information about when recurring themes are introduced. For example, the grade 2 materials utilize patterns as a recurring theme. In Chapter 10, students observe the phenomena. The materials generate questions such as "What do you observe?" and "Is the frog shown as an adult frog or a young frog?" The materials continue to draw students' attention to patterns as a recurring skill that students are developing. Investigations of patterns come up again at least five times in the materials.
- Materials strategically integrate recurring themes and concepts into each chapter of the Teacher eBook: Grade 2. The materials highlight recurring themes in the lessons with a blue "Theme" icon. The icon helps teachers understand the recurring theme in the lesson as outlined in the TEKS.
- The grade 2 lesson materials include recurring themes and concepts that introduce background support in Engage and revisit the themes and concepts using specific questions and sentence stem prompts in Explain. For example, Chapter 4 introduces questions like, "What happens when objects are pushed and collided together?" and provides a trampoline photo to engage students in building prior knowledge. During the Explain part of the lesson on Day 3, students use the infographic of marbles colliding and leaves falling from a tree to connect the cause and effect of the concept "Collide and Change." On another day, recurring themes and concepts are introduced with background support in the Engage activity.

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

- Materials support the development of students' content knowledge with a systematic approach to delivering content. In the Supporting All Learners guide, there is an explanation of the 5E instructional model used throughout the curriculum. Additionally, there is a model that illustrates how the development of students' content knowledge and skills is appropriate for the concept and grade level as outlined in the TEKS. This model provides a routine for students to engage with phenomena, gather evidence, connect with science content in authentic ways, and show understanding. The Daily Lesson Plan provides structure to each day's instruction.
- The TEKS Grade 2 Correlations guide shows how the strategically and systematically developed lessons integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS. The TEKS Grade 2 Correlations guide lists the TEKS and which phenomena activity correlates with them. For example, for TEKS 2.10, the Hands-On Investigations lessons are included for Sandy Wind, Rocking and Rolling Down the River, Watching the Weather, and Weather Mapper.

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

- In each chapter of the Teacher eBook: Grade 2 are STEAM Stations. These stations provide sufficient opportunities for students to plan and conduct classroom and field investigations. The STEAM Stations support students as they make connections across disciplines and strengthen their understanding of science concepts as outlined in the TEKS. For example, students conduct field investigations of pushes and collisions to engage in problem-solving and make connections. In Chapter 4, Lesson 1, the STEAM Station provides opportunities for students to engage in problem-solving and develop an understanding of science concepts.
- Materials contain a Hands-On Investigation Library: Grade 1 that contains multiple opportunities
  for students to engage in classroom, lab, and field observations. These TEKS-aligned
  investigations provide implementation resources for teachers and instructional support for
  students. Materials also include opportunities for students to ask questions and plan and
  conduct investigations. For example, materials provide the teacher with a set of possible
  student questions, including guiding questions the teacher can ask to help students ask
  questions and plan and conduct investigations.

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

Evidence includes but is not limited to:

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

- The grade 2 materials embed phenomena and provide opportunities to develop, evaluate, and revise their thinking as they engage in phenomena throughout the chapter. The hands-on investigation, graphic organizer, photo, and notebook can all be utilized during the course of the lessons and chapter as the student defines and solves the problems. To find these things, the materials provide an Interactive Student eBook: Grade 2 that integrates phenomena into each lesson. For example, Chapter 3 of the Interactive Student eBook: Grade 2 opens with the question, "How does a gong work?" Students investigate this question through authentic experiences and while practicing scientific and engineering practices.
- Materials use phenomena as a central anchor that drives student learning across grade-level content in each discipline. Students examine phenomena using science and engineering through the lens of recurring themes. In grade 2, students begin investigating the structure of what animals do. Throughout this chapter, students identify patterns in animal behavior. For example, in Chapter 2 of the Teacher eBook, the green question is a connective tissue. Students are presented with a phenomenon through observation. The Engage activity in the Teacher eBook presents opportunities to observe weather phenomena.

• At the end of each chapter, students record conclusions using Lesson Foldables, Show What You Know reflection questions and discussions, and/or STEM projects.

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

- Materials include a pre-assessment section for each lesson in the Teacher eBook: Grade 2. In the
  pre-assessment section, teachers are provided with a Page Keeley Science Probe. This probe
  leverages students' prior knowledge and experiences to address potential areas of
  misunderstanding adequately. 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 5, the Earth Materials Probe helps students uncover that plants and animals use Earth's
  materials.
- Grade 2 student materials include recurring questions that leverage students' prior knowledge
  and experiences related to phenomena and engineering problems. In the Chapter Preview of
  the Teacher eBook, students are asked to think about their experiences related to science
  content. Materials anchor student learning to phenomena with hands-on investigations. In the
  Explain Activity, students are asked to recall evidence and information.

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

- The McGraw Hill K-5 Science Program Overview states that students "learn best by doing and how 100% TEKS-aligned investigations allow students to explore lesson topics and observe new concepts in action." These investigations include "hands-on investigations to experience science; Embedded Claim Evidence Reasoning-prompting students to communicate their understanding; Anytime Investigation Videos – allows students to see the lab in action; STEM Projects – where students solve open-ended problems; and Interactive Science Notebooking – where students record their findings."
- The Chapter Overview section at the beginning of each chapter provides a TEKS Refresh accessory and a TEKS Progression chart. These tools outline the scientific concepts students must learn as well as the order they naturally build upon each other and addresses common misconceptions teachers should be aware of. Additionally, the materials provide a Chapter Overview that identifies the student learning goals behind each phenomenon or engineering problem. For example, in grade 2, a lesson on rocks and soil provides a chapter launch that includes the objectives, I Can statements, and science background.
- The Program Overview provides a convenient chart illustrating how each grade K–5 contains recurring concepts and themes. This helps build deeper understanding as the students revisit key concepts and build on prior knowledge. The scope and sequence of topics provides support for teachers with Content Background and TEKS alignment. The TEKS at a Glance in Chapter 5 outlines the scientific concepts covered in the chapter and the TEKS that correspond with the concepts. Materials provide chapter and content planning aids that describe the scope and sequence. In one Chapter Overview, the TEKS Progression supports teachers with TEKS alignment.

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

- The Program Overview outlines the main concepts and themes over the grade levels and illustrates the big picture of how they are aligned vertically K–5. The scope and sequence allows students to build knowledge throughout the grade level as well as year after year.
- The grade 2 Table of Contents is intentionally sequenced for students to increase conceptual understanding. For example, the Table of Contents for Chapter 6 begins by introducing Weather Information in Lesson 1, then moves to Severe Weather in Lesson 2, introduces the Sun's Light and Heat in Lesson 3, and finally, in Lesson 4, explores Objects in the Sky. This provides a systematic and layered instructional approach to help students create deep understandings and build the weather and season concepts from grade K and grade 1 lessons.
- Materials provide STEM Projects that provide opportunities for students to build and connect
  their knowledge and skills within and across units and grade levels. In the STEM Project: Answer
  Key and Teacher Support guide, materials provide background information for teachers to
  understand connections students will make within their grade level Texas Essential Knowledge
  and Skills (TEKS), across grade levels TEKS, and covering units and content areas.
- In each chapter of the Teacher eBook: Grade 2, teachers have access to a TEKS Progression graphic. This graphic explains how the TEKS build upon each other across grade levels. A TEKS Refresh guide is available for students that need support building prior knowledge.

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

- Materials include a Table of Contents that intentionally sequences chapter content in a way that
  builds conceptual understanding. For example, the first chapter in the Teacher eBook: Grade 2
  explores how scientists help people, which reviews concepts they learned about scientific and
  engineering practices in the previous grade. Chapter 8 in the Teacher eBook: Grade 2 introduces
  animal growth, Chapter 9 examines animal survival, and Chapter 10 builds on those concepts
  with a look at how animals grow and change in their life cycles.
- The materials sequence instruction in a way that activates or builds prior knowledge before explicit teaching occurs, which allows for increasingly deeper conceptual understanding. For example, grade 2 materials utilize a lesson flow in which students explore concepts before learning about them. In a lesson on the matter, students observe materials before they are introduced to the key terms, temperature, texture, and flexibility. The students are able to activate prior knowledge from the previous grades of identifying and classifying physical properties. Students use their observations to answer the explorable question: How can you use different properties to describe objects? Throughout the lesson, the materials prompt the teacher to ask questions after the visual literacy, and they check for understanding on day 3.

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

- The materials clearly provide instruction in grade-specific core concepts, recurring themes, and SEPs. For example, the materials use the 5E instructional model for sequencing. During the Engage phase, materials provide pictures and videos to capture students' interest in learning. The teacher asks an Essential Question to activate the concept. During the Explore phase, students conduct hands-on activities to explore and gather data. Students rely on their own observations. During the Explain phase, students construct explanations based on reading or visual literacy that the materials provided. In the Elaborate phase, students connect their learning through writing prompts from the STEM connection. The Evaluate phase provides an opportunity for students to reflect on their learning. In grade 2, students analyze the patterns in a table to determine how objects in the third group should be classified.
- Materials include a TEKS Correlation: Grade 2 document that displays all of the second-grade
  grade-level correlations. These include the core concepts, Recurring Themes, and Concepts, as
  well as SEPs. This document shows where these standards are found in both teacher and
  student-facing materials. Each chapter in the Teacher eBook: Grade 2 has a TEKS at a Glance
  chart. This chart clearly and accurately shows the course-specific core concepts, recurring
  themes and concepts, and scientific and engineering practices that are addressed in each
  chapter.

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

• Each lesson in the Interactive Student eBook: Grade 2 begins with an Essential Question to focus student understanding throughout the material. The Essential Questions are within the main boundaries of the grade level TEKS. For example, the Essential Question for Lesson 1 in Chapter 5 of the Teacher eBook: Grade 2 asks students, "How does the wind move materials over Earth's

- surface?" This question directly ties to the standard 2.10A, which asks students to "describe how wind and water move soil and rock particles across the Earth's surface."
- Materials provide the lesson objectives in the chapter overview for each chapter. The lesson overview also lists the student learning objective for each lesson. For example, in Chapter 2, for grade 2, students classify matter by observable physical properties. Inside every chapter, "I Can" statements can be found to let students and teachers know exactly what will be mastered. For example, the "I Can" statement in Lesson 2 says, "I can investigate and explain how matter can be changed."
- Materials provide multiple opportunities at the end of each lesson in the Teacher eBook: Grade 2 for students to demonstrate mastery of a concept. These opportunities include both formative and summative assessments that are directly tied to the grade 2 TEKS.

### **Indicator 3.2**

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

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

- The Teacher eBook: Grade 2 offers valuable resources to support teachers in understanding the alignment and progression of Texas Essential Knowledge and Skills (TEKS) within the curriculum. In the Teacher eBook: Grade 2, each chapter includes a TEKS progression chart. This chart outlines the vertical alignment of TEKS for the current grade and the two grades that follow. Teachers are able to see how conceptual development progresses through grade levels.
- Additionally, the materials include a Program Overview that contains a Full Scope and Sequence
  page. While this Scope and Sequence lists the names of the chapters in the Teacher eBook:
  Grade 2, it does not display the specific TEKS associated with each chapter or demonstrate how
  they are horizontally aligned. To address this, Teacher eBook: Grade 2 has a TEKS at a Glance
  chart, which lists the TEKS relevant to that particular chapter.
- The McGraw Hill Texas Science Vertical and Horizontal Alignment explains how the grade-level content, recurring themes and concepts, and scientific and engineering practices are horizontally and vertically aligned.

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.

- In the Teacher eBook: Grade 2, each chapter begins with a Chapter Overview, which breaks down the lessons within the chapter and provides valuable information for teachers. The Lesson Overview for each lesson includes a Science Background section that provides science content for teachers. This section provides teachers with a basic explanation of the scientific concepts they are expected to teach.
- Materials also incorporate the Page Keeley Science Probes, which identify possible misconceptions or conceptual barriers that could limit students' understanding of concepts. For instance, in Chapter 2, the grade k teacher explanation helps teachers understand common misconceptions students may have when discussing solids and liquids. As stated in this chapter, "Students may think that solids cannot be soft. They might also think that matter in small pieces, such as grains of sand are not solids. In Lesson 2, students learn that matter is classified as a solid or a liquid according to whether it changes shape in a container and not its size or texture." This helps provide the teacher with guidance when teaching science concepts to students.

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

- Materials provided include various documents that outline the instructional design and intent of
  the program. The Supporting All Learners document explains how the materials were
  intentionally designed and includes information on Universal Design for Learning, the Texas
  Science Instructional Model, Multi-Tiered System of Supports (MTSS), and more. It also provides
  information on the 5E lesson structure, which is used throughout the curriculum. The 5E lesson
  cycle includes Pre-Assessment, Engage, Explore, Explain, Elaborate, and Evaluate, and is
  designed to engage students with phenomena, gathering evidence, connecting with science
  content in authentic ways, and showing understanding.
- Materials include the Program Overview, which gives teachers an explanation of the
  program's instructional design and purpose. It highlights features such as Text Complexity
  Support, Interactive Word Walls, and Hands-On Investigations. It also emphasizes how these
  features are incorporated into the materials. Examples include the Claim, Evidence, Reasoning,
  and Writing Prompts, which help students make meaning and apply what they learned in an
  investigation.
- The Chapter Resource Snapshot offers an overview of each chapter, including videos, STEAM
  Stations, and differentiation options available for the chapter. For instance, Chapter 5 provides
  cross-curricular activities in the STEAM stations that support Earth Systems and processes. This
  section provides teachers with a basic explanation of the scientific concepts they are expected
  to teach.

### **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,	М
1	thinking, and acting as scientists and engineers.	
2	Materials provide multiple opportunities for students to engage with grade-level appropriate	М
2	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

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

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

- Materials provide an Interactive Word Wall tool in the Interactive Student eBook: Grade 2, Lesson 1. This Interactive Word Wall supports students as they begin to understand science vocabulary related to the needs of plants. Students scroll over vocabulary words and are able to listen to how the word is pronounced, hear and read a definition of the word, and see an image that shows the students what that word means. Materials provide this resource to students as a support in both English and Spanish.
- Each chapter launches with a Get Ready section that poses questions that call for students to process and evaluate a video that motivates students to begin learning. For example, Chapter 4, Everyday Pushes and Pulls, includes independent reading books and a Write-About-It section.
- Materials provide a Science Notebooks section in the STEM Connection listed in the Student
  Interactive eBook: Grade 2. The Science Notebooks section explains to students to look for the
  science notebook icon throughout their textbook. The materials explain that just like scientist

Marie Daly recorded and organized her work, they will be doing the same thing. The science notebook resource provides students multiple opportunities to make sense of science concepts through reading, writing, thinking, and acting like scientists and engineers.

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

- Materials provide grade-level appropriate scientific texts throughout the Interactive Student
  eBook: Grade 2. For example, in Chapter 4, Lesson 2, students read a grade-level appropriate
  text called Making Things Move. This text is written at a second-grade reading level, provides an
  opportunity for the text to be read aloud, and supports students' understanding of key
  vocabulary with an Interactive Word Wall section.
- Materials provide opportunities for students to engage with grade-level appropriate scientific
  texts, including activities to help them develop an understanding of concepts. The Hands-on
  Investigations allow students to gather evidence to develop an understanding. For example, in
  Lesson 1 of Chapter 9, students record and compare animal structures and how they help them
  take in food, water, and air.
- The grade 2 teacher materials include a Hook Them With Books section in the Teacher eBook.
   This section provides leveled books for the current topic. For example, Chapter 2 includes books for Lessons 1 through 4 that provide multiple titles for self-selection, Guided STEAM Investigator Articles for discussion, and suggestions to look further into trade books on the same topic. For differentiation, the teacher may use Student Response Pages and the Teacher Article Support Guides.

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 2 students use the CER routine in every lesson to combine reading, writing, thinking, and
  acting like scientists and engineers. For example, in Chapter 2, Matter and Materials, Lesson 2,
  Day 3, students use the CER Graphic Organizer to answer guiding questions about Changes to
  Physical Properties.
- Materials provide opportunities for students to communicate thinking on scientific concepts in written and graphic modes. For example, in Chapter 3, Read the Photo, students answer the question, "What is causing the vibration of these instruments?" by typing in the box provided.
- The Interactive Student eBook: Grade 2 provides students with multiple opportunities to communicate their processing of scientific concepts through written, graphic, and digital modes. For example, students are asked to read a diagram of the Earth, Moon, and Sun and then prompted to write about a time when they saw the Moon shining brightly in the sky. Students are given an opportunity to communicate their thinking in a digital form by typing their answers with a keyboard. Students are also provided an opportunity to make and then record a scientific claim in their science notebook with a sentence stem, "I think \_\_\_\_\_ because \_\_\_."

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.

- Each chapter of the Interactive Student eBook: Grade 2 provides students with Hands-On Investigations that allow them multiple opportunities to productively struggle as they develop scientific concepts. For example, in the Teacher eBook: Grade 2, students are provided an opportunity to engage in a STEM Project at the end of Chapter 2 to go deeper with their understanding of how small units can be combined to form new objects for different purposes. In addition, materials provide a guide for teachers that provide suggestions for supporting students as they possibly struggle to make sense of scientific content as well as support for teachers to help students make connections across the curriculum and within the grade level. There is a STEM Project listed at the end of each chapter in the Teacher eBook: Grade 2.
- Materials create transfer opportunities for students to take what they have learned and use it
  flexibly in different situations. For example, the Show What You Know section allows students to
  demonstrate their learning. Students may be instructed to write and give speeches on a given
  topic. The teacher encourages students to have three main points in their speech and to set
  their outlines around the main points and instructs students to make flashcards around the
  main points.
- In Chapter 1, students use the STEAM stations to act like scientists and engineers while struggling on their own to explore the new science concepts. Then, during the Hands-On Investigation, the teacher provides structured inquiry but may allow students to use the Open or Guided Inquiry Options to encourage student engagement and perseverance. Teachers use the CER routine and templates to explain their findings.

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

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

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

Evidence includes but is not limited to:

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

- In the Teacher eBook: Grade 2, teachers are introduced to the Claim, Evidence, Reasoning (CER) routine in Chapter 1. The CER routine occurs in each lesson of the chapters in the materials to support students as they work towards answering an Essential Question. The Interactive Student eBook: Grade 2 prompts students to use evidence to support their hypotheses and claims in the CER Routine. The CER routine asks students to make a claim after they engage in an investigation during the Explore part of the lessons. They are then asked to gather evidence that supports their claim during the Explain portion. Finally, students are asked to validate their claims through careful reasoning. Sentence stems are provided for students in the student materials, and teacher scripts are provided for teachers in the teacher materials.
- Materials prompt students to use evidence to support their hypotheses and claims. For example, the student materials include a Guided CER template for most lessons. This Guided CER provides a scaffold for students by prompting them with additional questions and sentence stems. The Guided CER also points to specific pieces of information from the lesson to support students as they record evidence. For example, the Guided CER for Lesson 6.2 in the Interactive Student eBook: Grade 2 includes the sentence stem, "From the map, I learned..." This sentence stem prompts students to look back at the weather map from the lesson in order to find their

- evidence. The Guided CERs also include a teacher version with examples of possible student answers. This supports teachers as they work with individual students.
- At the conclusion of each grade 2 Hands-On Investigation, students use evidence to explain
  whether their results supported their prediction. In Chapter 2 of the Teacher eBook: Grade 2,
  the Hands-On Investigation called Time to Change asks students, "Did your results from the
  investigation support your prediction? Use evidence to explain why or why not." Grade 2
  student and teacher materials prompt students to use evidence to support their hypotheses.
  Each Hands-On Investigation provides similar prompts for students.

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

- The materials provide opportunities to develop and use vocabulary after having a concrete or firsthand experience to which they can contextualize new terms. For example, the beginning of each chapter in the Interactive Student eBook: Grade 2 begins with an opening routine that provides students with concrete experiences in the form of Hands-On Investigations. Examples of these opportunities include the Read Together section that follows the Hands-On Investigation in Chapter 2. In this section, students are provided with an Interactive Word Wall, where they are able to click on each vocabulary word to see a photograph of what that word means as well as the definition of that word. The materials provide the ability for the text to be read aloud for students who are not yet reading.
- The grade 2 student materials include embedded opportunities to develop and utilize scientific vocabulary in context. In the Interactive Student eBook: Grade 2, key vocabulary is highlighted at the top of the page in isolation and then used within context, along with pictures of the topic. For example, for the Wind Moves Materials lesson, the Interactive Word Wall includes the words dunes, Earth, particle, rock, sand, and wind. The Interactive Word Wall then uses each word in context. For example, "You cannot see the air, so you cannot see wind. The wind is the air that is moving over Earth. However, you can see that the wind is blowing. You also can feel the wind on your face." The Interactive Word Wall activities show connections among concepts, science activities, and academic vocabulary.

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

- Materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level. For example, the Teacher eBook: Grade 2 provides teachers with instructional support for structured, guided, and open inquiry. Throughout the different options for inquiry, the materials provide teachers with sample questions to ask students in order to assist them as they go beyond simply making claims and moving towards citing evidence they observe through scientific inquiry. In Chapter 7, students explore what happens to a plant that gets too much rain. Teachers are provided with questions like, "What changes do you see?" "How do the leaves look?" "What else do you notice?" "How does the environment support the plants that live there?" and "How did you collect measurements as evidence?"
- The Teacher e-Book: Grade 2 includes the Talk About It icon and prompts the teacher to integrate argumentation and discourse by starting a discussion. The materials state, "Talk About It: Start a class discussion. Ask: Have you ever grown a garden? Sample answer: no Ask: What would you grow in a garden if you could? Sample answer: vegetables, flowers." Then it prompts

- the teacher to encourage students to share ideas with partners or small groups. This happens throughout the textbook and during the Engage section of each lesson.
- Materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level. In the Teacher eBook: Grade 2, materials provide a Talk About It section in each chapter that provides prompts for assisting teachers as they start a discussion with students. Some examples include "Talk About It: Start a class discussion. Ask: Look at the photo. Is the frog shown as an adult frog or a young frog? Explain. Sample answer: adult frog: A young frog is a tadpole, and an adult frog is fully grown with four legs." Next, it prompts the teacher to encourage argumentation and discourse among students in partners or small groups: "As students discuss whether the frog's babies will look like the parents, encourage them to share ideas." The section also provides sentence stems to promote independent thinking and respectful listening.

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

- The grade 2 student and teacher materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level/course. Throughout the Teacher eBook: Grade 2, the Hands-On Investigations in each chapter provide multiple opportunities for students to construct and present written and verbal arguments through the CER activities, the Science Mindset sections, the Talk About It sections, and the notebooking activities. For example, in the Hands-On Investigation called Rain or Shine, Feeling Fine in Chapter 8, students record their claims citing evidence from the investigation through the CER activity. The section called Science Mindset provides support for teachers as they explain what active listening is and instructs them to allow time for students to practice active listening as they share their thinking with a partner. The Talk About It section provides them time to share their thinking with a partner or in small groups as the teacher listens and models recording a claim on chart paper. The notebooking activity provides students with an opportunity to record their claims and cite evidence and reasoning.
- Materials provide criteria for developmentally appropriate arguments to explain a phenomenon
  or defend a solution to problems using evidence acquired from learning experiences. For
  example, the Page Keely Science Probes provide strategy videos to guide the teacher with the
  Partner Speak Strategy. The video stresses the importance of active listening, sharing, and
  discussing. It states that part of the argumentation process requires listening carefully to the
  reasoning of others.
- Materials provide opportunities to construct and present developmentally appropriate written
  and/or verbal arguments that justify explanations of phenomena or solutions to problems using
  evidence acquired from learning experiences. Each chapter of the Teacher eBook: Grade 2
  provides a STEM Project. The STEM projects scaffold students to plan investigations related to
  the science content, identify the problem or phenomena, record their process, and report their
  results.

### **Indicator 5.2**

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

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

# Meets | Score 4/4

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.

- Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. In the Assess section of Lesson 2 in Chapter 2 of the Teacher eBook: Grade 2, teachers are provided with sample student responses. These sample responses are highlighted in pink and connect to the Talk About It activity. In this activity, teachers assess student understanding by asking, "How does identifying solids and liquids help you classify matter?" The materials prompt teachers to have students record their thinking in their science notebooks and provide a sentence stem that says, "My claim is valid because..." A possible sample response from a student is given and highlighted in pink.
- In grade 2, the teachers are provided guidance on partial answers in rubrics for Show What You Know and STEM projects. The teacher can download or view the STEM Project Rubric or the Show What You Know project rubric, which includes phrases for each point of the project to evaluate how deeply students understand the concept and assess mastery.
- Materials provide teacher guidance on anticipating student responses and the use of
  questioning to deepen student thinking. In the Claim, Evidence, Reasoning (CER) activity listed in
  Lesson 3 of Chapter 2 of the Teacher eBook: Grade 2, teachers are provided with sample
  questions to ask students related to the scientific content and sample student responses. For

example, teachers are provided with the sample question, "How can you change the physical properties of matter?" A sample student response is, "I claim that the physical properties of materials can be changed by folding, molding, cutting, or heating them." Several sample questions are provided throughout the lessons to support teachers as they attempt 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.

- The materials provide guidance for the teacher on how to support students' use of scientific vocabulary in context. Vocabulary words are taught using a variety of word-learning strategies, including word origin, word parts, multiple meanings, related words, context, Total Physical Response (TPR), and cognates. Each lesson includes an Interactive Word Wall support page that provides teacher guidance on words students should practice, vocabulary words highlighted in the lesson, and strategies that can be used to teach those words and build the Interactive Word Wall. For example, in Chapter 9, Lesson 2, Day 2, the materials suggest monitoring comprehension. The teacher shares the sentence showing the word behavior in context. The teacher says, "Use clues in the sentence to make an inference about the animal's behavior."
- Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context. Each chapter in the Teacher eBook: Grade 2 has a Science Language and Content Acquisition chart. This chart supports teachers as they provide rich and varied experiences with science vocabulary to help students develop scientific language. The Science Language and Content Acquisition chart includes vocabulary that links to prior knowledge, lesson vocabulary, supporting vocabulary, and vocabulary resources such as a student Word Lab. The Word Labs are an additional tool teachers can use to support students as they engage with vocabulary words through activities involving word origins, word parts, multiple-meaning words, and words in context.

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

- The McGraw Hill K-2 Science materials include Keely Probe Strategy Videos. These videos provide teachers with guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims. Materials include professional development videos that help support and guide teachers on certain communication strategies and to help deepen students' understanding of concepts. These videos, such as the Partner Speak Strategy video, explain different strategies teachers can use to create and reinforce a class culture where students listen to and evaluate whether or not they agree with each other's ideas. The Partner Speak Strategy promotes good listening skills and helps students understand someone else's reasoning. This strategy works well for English Language Learners (ELL) because as they explain their thinking to a partner, the partner can help verbalize their idea to the group.
- Materials provide teacher guidance on preparing for student discourse and supporting students
  in using evidence to construct written and verbal claims. In the Supporting All Learners guide, a
  section called Talk About It: Student Discourse provides background knowledge for teachers on
  how to create and support collaborative, rich, and structured conversations with students. The
  Supporting All Learners guide also provides information for teachers on how to support students
  as they communicate claims, share their evidence, and argue their reasoning with the materials
  provided to them in the Teacher eBook: Grade 2.

• The materials provide sentence stems for the teachers to provide for students as they practice constructing written and verbal claims. Each chapter launch includes a video for the students to view. In Chapter 3, before the teacher plays the video, the materials guide the teacher to review the word "gong" and ensure that they know that a gong is a musical instrument that makes a sound when it is struck with a mallet. The teacher asks, "What did you see in the video that made you curious? What got you excited?" Students talk about the Big Idea. Sample student responses are provided, such as "I think the sound is made by..." "I think the sound is used in everyday life when..." "I think the sound is used to communicate over a distance by..."

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

- Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions. The Show What You Know guide provided in the materials supports teachers by providing various modes of communication students can use to share their thinking and solutions. The guide provides examples such as commercials, debates, songs, collages, comic strips, skits, poems, and many more. Each mode of communication includes sections such as Tips and Modifications and Progressions. These sections provide the teacher with support specific to the student's grade and developmental level. Examples of common student responses and behaviors are given to help teachers facilitate the sharing process.
- The materials help teachers facilitate the sharing of students' thinking and finding solutions. The
  Guided CERs provide teachers with the organization and potential student answers for each
  lesson. In Chapter 4, Lesson 2, students investigate and explore the strengths of pulls and
  pushes. The materials guide the teacher to assist students with finding evidence in the lesson
  and organizing the evidence.
- Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions through the use of science, technology, engineering, and math (STEM) Projects. The materials provide STEM projects in which students are provided an opportunity to engage in real-world investigations, solve open-ended problems, and design a solution or solve a problem. Materials provide a teacher support guide for each STEM project where possible student exemplars and common setbacks are shared. For example, in the STEM Project: Wind and Water Changes, students use their understanding of how the wind can move sand across the land to make a solution for the sand blowing out of the students' sandbox. The Teacher Support STEM Project: Wind and Water Changes guide includes possible student work, such as creating a screen that is secured around the perimeter of a sandbox that keeps the wind from reaching the sand.

### 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 a range of diagnostic, formative, and summative assessments that include formal and informal opportunities to assess student learning in various formats. For example, pre-assessments are provided throughout the teacher and student materials. In the Interactive Student eBook: Grade 2, children are given a pre-assessment for Lesson 2.4 in the form of a Page Keely Science Probe. Materials also provide a Lesson Review assessment for Lesson 2.4 to measure student learning. A summative assessment for Chapter 2 is provided as well.
- The materials include summative assessments in a variety of formats. Grade 2 materials provide teacher guidance for students in the Show What You Know, STEM Projects, and chapter tests. For example, in Chapter 4, Everyday Pushes and Pulls, the teacher assesses student growth in scientific knowledge through Sound in Motion. They build a prototype by building an instrument that makes sound through a push or pull. The materials guide students with criteria. The teacher assesses the students through the rubric.
- Materials include a variety of informal assessments that give teachers feedback on student learning in the moment so they can modify instructional approaches. For example, in the Teacher eBook: Grade 2, a section called Check for Understanding is provided as a form of informal assessment. In Chapter 3, Lesson 1, teachers are prompted to utilize an Essential

Question Check-In, where they have students use the Cause and Effect graphic organizer to demonstrate their understanding of how sound is made. A Reinforce section is provided for teachers to use for intervention when students are unable to explain how sound is made.

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

- Materials assess all student expectations and indicate which student expectations are
  addressed. Materials provide a TEKS Correlations: Grade 2 guide that lists all of the Second
  Grade Science TEKS and where these TEKS are taught in both the student and teacher materials.
  Every lesson in the Teacher eBook: Grade 2 is clearly correlated to the Second Grade Science
  TEKS as outlined in the Lesson Overview. Lesson Overviews provide lesson objectives and the
  correlating Science standards.
- Materials include TEKS-aligned assessments that align the curriculum standards and student
  expectations and are designed to measure student understanding of the concepts and skills
  taught in the materials. Each chapter in the Teacher eBook: Grade 2 includes a summative
  assessment that lists all of the standards it aligns to. For example, in the Chapter 4 STEM Project,
  the students are assessed over TEKS 2.1B, 2.1G, and 2.8A, where they use scientific practices to
  plan and conduct simple descriptive investigations, use engineering practices to design solutions
  to problems, and develop and use models to represent phenomena, objects, and projects.

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

- Materials include assessments that integrate science and engineering practices (SEPs) with
  recurring themes and concepts. For example, the McGraw Hill Second Grade Texas Science
  materials provide STEM Projects. In these STEM Projects, students show their understanding of
  recurring themes and concepts as they utilize SEPs. In the STEM Project: Reporting Matter,
  students use their understanding of how smaller units can be combined to develop a storage
  container so Ms. Mitra can store her leftover school supplies during the summer. A STEM
  Project Checklist is provided that assists students as they plan a solution, build a prototype, and
  report their process and results to their teacher and classmates.
- Materials include assessments that integrate SEPs with recurring themes and concepts. For
  example, the McGraw Hill Second Grade Texas Science materials provide STEM Projects. In
  these STEM Projects, students show their understanding of recurring themes and concepts as
  they utilize SEPs. In the STEM Project: Sound in Motion, students use their understanding of
  how the strength of a push or pull can change the sound of an instrument. A STEM Project
  Checklist assists students as they plan a solution, build a prototype, and report their process and
  results to their teacher and classmates.
- The Build Your Skill activity in the Interactive Student eBook: Grade 2 includes questions that tie in core science concepts, SEPs, and recurring themes. Teacher material provides supportive guidance for assessment. For example, in Chapter 2, Changes to Physical Properties, the Lesson 3 Build Your Skill activity integrates the scientific and engineering practices that ask students to communicate explanations and solutions as they use the recurring theme and concepts, describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same, and conduct a descriptive investigation to explain how physical properties can be changed through processes.

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

- Materials include assessments that require students to apply knowledge and skills to novel contexts. Each chapter in the Teacher eBook: Grade 2 includes a Show What You Know assessment in the Chapter Review section. The Show What You Know assessments ask students to connect the chapter's scientific content to their everyday lives. For example, in Chapter 4, the Show What You Know assessment asks them to discuss how the chapter content connects to students' everyday lives. Students are asked, "How does using different strengths of pushes and pulls affect your everyday life?" Students are provided the option to create a podcast, write a journal entry, or create a photo album to answer the question. A rubric is provided to teachers to support the assessment process.
- Materials include assessments that require students to apply knowledge and skills to novel contexts. Each chapter in the Teacher eBook: Grade 2 includes multiple Write About It activities that can be used as assessments. The Write About It activity found in the STEM Connection in Chapter 4 of the Teacher eBook: Grade 2 asks students to choose a writing prompt related to yo-yos, organize their information in a word web, and then use the information they gathered in their word web to write a paragraph and draw a sketch about yo-yos. A rubric is provided to help teachers assess how well students described the connection between yo-yos and strength and motion or how well they explained how they would improve on a toy design. Students are also assessed on how well they used the information from their word web and how well they included scientific vocabulary.

#### **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	M
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.

- Materials include information and/or resources that provide guidance for evaluating student responses. In the grade 2 materials, a summative assessment is provided as a Show What You Know activity in each chapter of the Teacher eBook: Grade 2. Students are provided with a choice in how they demonstrate mastery of the science content from the chapter. Teachers are provided with a Show What You Know Teacher Support guide that includes sample student responses and suggested teacher actions to address learning gaps. Materials also include a Show What You Know Rubric for each chapter that assists teachers in evaluating student responses. For example, the rubric for the Show What You Know includes science knowledge, vocabulary comprehension, everyday connections, and activity as the categories that are rated, and the ratings start at 4 (strongest) to 1 (weakest). Each Show What You Know assessment has its own rubric that matches the assessment.
- Materials include information that provides guidance for evaluating student responses. In the Teacher eBook: Grade 2, teachers are provided with multiple formative assessment examples at the end of each lesson, as well as sample activities teachers can use to address student learning gaps. For example, in Chapter 4, an Essential Question Check-In is provided as a formative assessment option. Students are asked to use a Cause and Effect graphic organizer to

demonstrate their understanding of how the strength of pushes and pulls affects an object's motion. An example student response is provided to help teachers identify the learning expectation. A Reinforce section is listed under the Essential Question Check-In as an intervention option for students needing additional support. The Reinforce section prompts teachers to have students unable to explain how the strength of pushes and pulls can affect the motion of an object use the Act It Out graphic organizer to play a vocabulary game.

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

- Materials provide some support for teachers' analysis of assessment data based on measures of student progress appropriate for the developmental level. Materials provide Interactive Performance Reports that measure students' progress in assigned activities and their progress with science standards. An overview video tutorial of the assessment features called Assessment and Report eLearning is provided for teachers, and it explains how to utilize the reporting platform.
- The materials provide some support for 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. For Grade 2, the EB/EL section provides guidance for scaffolded support and differentiation.
- The K–2 Activity and Standards Performance Reports in the Digital Technical Support guide teachers on how to analyze assessments. These reports provide clear criteria for teachers to use to move students from one proficiency level to the next, and the materials provide suggestions for instructional groupings.

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

- Materials provide assessment tools that yield relevant information for teachers when planning instruction, intervention, and extension. For example, the Interactive Performance Reports allow teachers to color-code or organize student data to differentiate science instruction based on assessment results. The teacher can generate reports for the whole class or individual and use them to monitor progress. However, there are no teacher guidance materials that explain how the data from the assessment can be used to plan small-group instruction on specific concepts. In addition, while there are Reinforce and Accelerate sections throughout the Teacher eBook: Grade 2 that provide intervention and extension activities, they are found sporadically with minimal teacher guidance provided.
- Materials provide an Assessment Administration Guide that assists with the teacher's
  understanding and routine of gathering data to address students' instructional needs.
  Additionally, this guide helps with how to make instructional decisions, apply instructional
  decisions, and utilize teacher-led small groups.

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

- The grade 2 materials provide resources and teacher guidance on leveraging different activities to respond to student data. For example, throughout the Teacher eBook: Grade 2, there are sections titled Reinforce, Extend, and Differentiation Tips. These short sections provide brief activities teachers can use to provide support for struggling students as well as extensions for students showing mastery. For example, in Chapter 2 of the Teacher eBook: Grade 2, teachers are provided with an Extend activity to provide acceleration for students who are ready. The activity prompts students to research famous mosaics worldwide as an extension of the Woodwork learning video.
- The materials provide student resources for teachers to respond to performance data. Materials
  provide direction of science concepts through STEAM Stations that reinforce, extend, and
  differentiate activities. The materials make some suggestions as to which activities in the
  program to assign to students when they have difficulty answering questions when the teacher
  is checking for understanding.
- The materials provide activities and a variety of resources to assist students who may be struggling with vocabulary acquisition based on formal and informal data collection. The Interactive Word Wall sections provide multiple strategies to respond to student needs. For example, in 2.8B, Everyday Sound, Lesson 2, there are several suggestions to support students using cognates, multiple meanings, context, total physical response, and vocabulary frames to "guide students as they organize words, materials, and visual supports on the Interactive Word Wall." Additional callouts for strategies to leverage vocabulary activities to support students are consistently found throughout the lessons.

### **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

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

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

Evidence includes but is not limited to:

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

- Materials include assessments that contain items that are scientifically accurate and free from errors. The Chapter 5 Test in the Teacher eBook: Grade 2 asks students to select three choices for the question, "What are examples of natural resources?" The choices provided include electricity, plants, rocks, math, and water.
- Materials include assessments that contain items that are free from bias. The Chapter 1 Test in the Teacher eBook: Grade 2 displays photos of people from diverse communities, races, and genders. For example, in the Chapter 1 Test, students see African American, Asian American, and Latino people reflected in the photos associated with the questions.
- Grade 2 assessments contain items that are scientifically accurate, avoid bias, and are free from errors. For example, in the Chapter 9, Lesson 1 Review of the topic Structures of Animals, the materials ask the student, "Which is the most useful way to conserve water?" Answer choices are: A) catch another animal, B) eat another animal, or C) smell another animal. This question is scientifically accurate and factual with no bias or errors.

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

Grade 2 assessment tools use clear pictures and graphics that are developmentally appropriate.
 Assessments throughout the program are designed to evaluate student understanding of the TEKS using multiple-choice and open-ended questions with a variety of pictures and graphics to support different learning modalities. The questions and answers use simple photos or graphics

that help grade 2 students because they are age appropriate. For example, in the Chapter 9, Lesson 1 Review about what the bodies of birds, fish, and dogs have in common, the materials provided age-appropriate images of a bird, goldfish, and a dog so the students can compare the animals in question.

- Materials provide assessment tools that use clear pictures and graphics that are
  developmentally appropriate. In the Interactive Student eBook: Grade 2, a graphic is used in
  Chapter 5 to illustrate how mushroom rocks are created by wind erosion over time. The graphic
  is developmentally appropriate for second-grade students.
- Materials provide assessment tools that use clear graphics. In the Interactive Student eBook:
   Grade 2, a clear graphic is used to model the inside of an eardrum. The eardrum is labeled for students.

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

- Materials provide guidance to ensure consistent and accurate administration of assessment
  tools. The materials provide an Assessment and Reporting video to show teachers the
  procedural steps for using pre-made assessments, how to customize pre-made assessments,
  and how to build their own assessments. While this video explains the process for using the
  digital assessment tool for formal assessments, the materials do not provide a guide for
  teachers that gives an overview of all assessments in the materials, including suggested informal
  assessments.
- Teachers can access the K-5 Assessment Administration Guide for suggestions on how to informally and formally assess students. The guide also provides checklists, forms, and other tools teachers can use to ensure consistent and accurate administration of assessments.
- Materials provide guidance to ensure consistent and accurate administration of assessment
  tools. The materials include sections at the end of many lessons titled Assess. In these Assess
  sections, there are different types of informal assessments, such as Write About It activities that
  provide a prompt for students and a simple rubric for teachers to grade their work. Materials
  include guidance to offer accommodations for assessment tools that allow students to
  demonstrate mastery of knowledge and skills aligned to learning goals.

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

- Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned with learning goals. For example, in the Assessment and Reporting video, options for student accommodations are highlighted, such as a text-to-speech feature, digital text read-aloud, and the option for reducing the number of questions asked to the student.
- The materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals. The Supporting All Learners PDF provides teachers with guidance and direction to respond to students' needs, including the Universal Design for Learning (UDL) information, which details how Texas Science provides flexibility to accommodate individual learning differences as well as information about Supporting Students Experiencing Difficulty with Literacy in Science and Engineering.

Materials include guidance to offer accommodations for assessment tools that allow students to
demonstrate mastery of knowledge and skills aligned with learning goals. For example, in the
Show What You Know guide, teachers are provided with multiple ways to support students as
they demonstrate mastery of skills. Multiple modalities are reflected in the assessment options
as well as progressions for different grade levels.

### **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

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

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

Evidence includes but is not limited to:

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

- The Teacher eBook: Grade 2 provides numerous activities labeled "Reinforce." These activities help teachers offer scaffolds to learners working toward mastery of scientific concepts. For example, the Reinforce activity in Chapter 7 of the Teacher eBook: Grade 2 provides teachers with oral prompts for students struggling to compare plant structures and identify patterns.
- Materials provide additional resources for targeted instruction and differentiation to support students who still need to achieve mastery. For example, in Chapter 9, the Hands-On Investigation asks students to complete the Guided Claim, Evidence, and Reasoning assignment to compare animal structures and how they help them take in food, water, and air. For intervention, the materials guide the teacher to have students think about what body parts they use to take in food, water, and air. The teacher records the students' comments on a chart paper so that the students can refer back throughout the activity.
- The Supporting All Learners: Equity and Access in Science K-5 PDF includes information to guide
  the teacher to support students experiencing difficulty with Literacy in Science and Engineering,
  strategies for students with Special Instructional Needs such as ADHD, and students with
  hearing and visual difficulties, such as students struggling with memory and cognitive
  difficulties. This resource provides instructional strategies and suggestions to target each of
  these different types of students to help support their learning.
- Throughout the materials, the Guided Write About It! sections provide scaffolded writing activity pages that help students write about their discoveries, graphic organizers that help students organize their thinking, leveled science readers, and articles that provide high-interest science content about STEAM topics. In the student edition, students find "Chunked," an

informational text written at the student's level with the ability to listen to the text online. This audio support provides reading scaffolding for students who have not yet achieved mastery at grade level.

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

- Materials provide enrichment activities for students that account for learner variability in the
  Teacher eBook: Grade 2. For example, in Chapter 7, Lesson 2, a STEAM Station is provided for
  students ready to extend and deepen their understanding of the pollination process. This
  activity asks students to research plants that do not follow the pollination process and present
  their findings to their peers. STEAM Stations are provided throughout every chapter in the
  Teacher eBook: Grade 2 and offer multiple opportunities to extend and enrich learning
  experiences for students of all levels.
- Throughout the materials, the Guided Write About It! section provides scaffolded writing activity pages that help all students write about their discoveries, graphic organizers to help students organize their thinking, leveled science readers, and articles that provide high-interest science content about STEAM topics. These supports allow the teacher to differentiate based on each student's needs. Teachers can give on-level students just enough support to feel successful, but the teacher can adjust the guidance provided when needed. The grade 2 student edition includes "Chunked," an informational text written at the student's level with the ability to listen to the text online.
- The materials provide enrichment activities for all learners that account for learner variability.
   Each chapter includes Hands-On Investigations, simulations, and extension lessons through
   STEAM. For example, in Chapter 9, Animal Behaviors, the learning is extended by having
   students write and illustrate a story about their favorite animal, including details about the
   animal's behaviors.
- The Teacher eBook: Grade 2 provides numerous activities labeled "Extend." The Extend activity in Chapter 2, Lesson 3 of the Teacher eBook: Grade 2 provides teachers with an activity for students who are ready for enrichment. In this activity, students are given a block structure and practice putting the structure together and taking it apart to deepen their understanding of parts and wholes.

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

- Materials guide teachers as they work with students to develop productive perseverance in learning. The Teacher eBook: Grade 2 provides teachers with Guided and Open Inquiry Options in Chapter 7, Lesson 2. The materials guide teachers with verbal prompts that support students attempting to plan their scientific investigations. The materials guide teachers to ask students, "What questions did you have when you observed the photo of a seed floating through the air?" This scaffold provides just-in-time learning acceleration for all students.
- Lessons provide support and resources for students ready to accelerate their learning. The
  materials include enrichment activities that contain challenging activities and assignments that
  extend beyond the regular curriculum and stimulate critical thinking, problem-solving, and
  creativity in the Show What You Know guide.
- Grade 2 STEAM stations included throughout grade 2 teacher and student materials provide
  opportunities for differentiation and acceleration for students. The STEAM lessons include
  Reinforce and Extend lesson suggestions for teachers to use as needed.

• During the Hand-On Investigations in the Teacher eBook: Grade 2, the materials give teachers opportunities for a guided lesson approach for students who need enrichment that allows for differentiation.

### **Indicator 7.2**

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

1	Materials include a variety of developmentally appropriate instructional approaches to	М
1	engage students in the mastery of the content.	
2	Materials consistently support flexible grouping (e.g., whole group, small group, partners,	М
_	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

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

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

Evidence includes but is not limited to:

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

- Every chapter in the Teacher eBook: Grade 2 provides STEAM station options. The STEAM Stations provide developmentally appropriate activities that reinforce and extend scientific concepts and provide students with multiple opportunities to achieve mastery of the concepts. For example, the STEAM Stations in Chapter 7, Lesson 3 of the Teacher eBook: Grade 2 provide various ways for students to master their understanding of plant environments and ecosystems. STEAM Stations include cross-curricular activities related to rocks' properties, including engineering, art, and math stations that engage students on a developmentally appropriate level.
- Materials include Page Keeley Science Probes to engage students with a scenario they consider
  and then return to later in the lesson. For example, in Chapter 4, the probe reveals if students
  recognize that motion and shape can change. When students revisit the probe, they provide
  evidence from their investigation and discussions for each answer choice. The Digital Spotlight
  explains how the students can use the sticky bar graphs strategy.
- Materials include multiple Digital Spotlights in each chapter of the Teacher eBook: Grade 2.
   These Digital Spotlights are video clips that introduce and reinforce specific science concepts

and engage students in mastering various scientific concepts. For example, students watch a Chapter 7, Lesson 3 video clip called "Rainy Forest." This video inspires students to investigate how environments support the plants that live there.

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

- Materials include a Planning for Flexible Grouping in a 5E Instructional Model document that
  provides consistent support for flexible grouping. This document includes the 5Es: Engage,
  Explore, Explain, Elaborate, and Evaluate. In these sections, the materials provide flexible
  grouping ideas for whole class, small group, partners, and individuals.
- The teacher can use the suggestions listed in the Reinforce and Extend sections of the Teacher eBook: Grade 2 to pull students that fit into those groups. It should be noted that the teacher would determine this rather than the grade 1 teacher materials.

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

- Materials consistently support and provide guidance and structures to achieve effective
  implementation. The Hands-On Investigation section provides teachers with information on
  scaffolding the activity from structured to guided to open. For example, in Chapter 2, students
  classify materials by physical property. The materials include guided and open inquiry. In the
  guided inquiry, the teacher asks, "How can you use different properties to describe objects?"
  Students write their explorable questions in the open inquiry and plan the investigation.
- Materials support multiple types of practices and guide varied assessments of learning. For
  example, in the Show What You Know: Teacher Support Guide, teachers are provided
  background on learning modalities and multiple examples of assessment opportunities through
  oral/auditory, drawing/creating, kinesthetic, and writing forms.
- Materials provide guidance and structures for effective implementation in the Supporting All Learners: Equity and Access in Science guide. This guide covers various background information on the instructional strategies listed in the teacher materials, including the 5E Instructional Model, Universal Design for Learning, MTSS, and more. Teachers also receive guidance on the importance of students learning from each other in the Talk About It: Student Discourse section.

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

- Materials represent a diversity of communities using images and information. For example, the
  materials in the Interactive Student eBook: Grade 2 positively portray a diverse group of
  scientists and engineers in the STEM Connection sections. In Chapter 1, the materials highlight
  African-American scientist Marie Maynard Daly.
- Materials include images that reflect the diversity of school communities. Both photographs and illustrated images of people include a wide variety of cultures, races, ethnicities, skin tones, and genders. For example, the Interactive Student eBook: Grade 2 includes photographs of a diverse group of students.
- Materials represent diverse people and communities. For example, in the Multiple Perspectives section of Chapter 9, students learn that in Tonga, people work together to gather fish for the community. The teacher continues to share with students how they get into boats and venture into the ocean to search for fish. Students talk about how people in their communities work together.

• The grade K materials include various images, videos, cartoons, graphic novels, and photos of children, adults, and places from around the world. They have many cultures, ages, and historical and current figures.

#### **Indicator 7.3**

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

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

### Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include guidance for linguistic accommodations commensurate with various levels of English language proficiency as defined by the English Language Proficiency Standards (ELPS). In each chapter of the Teacher eBook: Grade 2, the materials support Emergent Bilinguals (EBs) for activating prior knowledge, including a chart of transferable Spanish skills and a chart of cognates and false cognates. The strategies for activating prior knowledge are categorized by level of proficiency as defined by the ELPS: Beginning, Intermediate, Advanced/Advanced High.
- Each chapter includes guidance to activate prior knowledge. In Chapter 2 of the Teacher eBook: Grade 2, the materials guide the teacher to discover what students know about describing the properties of matter. For the Advanced EL, the teacher provides sentence frames for the students as they look through the chapter to find photos of materials teachers can use to build a house. Students also look for pictures of materials that cannot be used to build a house. As the students discuss why the materials may or may not be used to build a house, the teacher encourages them to use sentence frames.
- The leveled supports on the Lesson Differentiation page include teacher guidance for linguistic
  accommodations in grade 2. These supports help students build meaning and language
  development. For example, this page lists the ELPs covered during the Explain and Elaborate
  portion of the lesson. It provides suggestions for each stage of linguistic support: Beginning,
  Intermediate, and Advanced/Advanced High. Strategies include using realia, choral repetition,
  modeling sentences, and other collaborative activities.

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

- Materials encourage strategic use of students' first language as a means of academic
  development in English. The materials provide information for teachers about cognates, Spanish
  language transfer, and notes throughout the lessons that prompt teachers to encourage
  students to use their first language via the "Transferable and Nontransferable Skills" and
  "Understanding Language Deviations" videos.
- The materials also provide a Multilingual Glossary that provides English vocabulary words and definitions alongside translated words and definitions in multiple languages, including Arabic, Bengali, Burmese, Chinese, French, Haitian-Creole, Hmong, Korean, Portuguese, Russian, Swahili, Tagalog, Urdu, and Vietnamese.
- Each chapter contains guidance for Spanish language transfer. Point-of-use Emergent Bilingual/English Learner (EB/EL) teacher support encourages using students' first languages during instruction. For example, in the Teacher eBook: Grade 2, a teacher note in Chapter 7 states, "Multilingualism is an accomplishment! Invite students to share words for plant parts in their native languages. ELPS 3E." For teachers to find resources for other languages, they can reference the Multilingual Glossaries that provide resources for translation and support in students' first language.

#### **Indicator 7.4**

Materials guide fostering connections between home and school.

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

## Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials provide information to be shared with students and caregivers about the program's
  design. Each chapter in the materials includes a Letter to Home with information the teacher
  can share with their students' caregivers. Chapter 1's Letter to Home explains the program
  design and the outline of the 5E Instructional Model. The letter explains that the 5E Instructional
  Model includes an Engage, Explore, Explain, Elaborate, and Evaluate routine and provides
  definitions and examples.
- Additionally, the letter includes simple Conversation Starters that caregivers can use with their children and a Family Activity that reinforces the scientific content taught in class. For example, in Chapter 1, Onward We Go, the Letter to Home informs caregivers of this chapter's concepts, vocabulary, and standards. "In the first chapter, our class is learning how scientific practices and innovation can help others. Throughout this chapter, students will have the opportunity to ask questions and define problems based on observations or information from text, phenomena, models, or investigations, use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems, listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion, and explain how science or innovation can help others." The materials provide an option for teachers to download the letter into a Microsoft Word file, allowing for the translation of the content into another language.

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

- Materials provide information to be shared with caregivers for how they can help reinforce student learning and development in the Letter to Home documents. The materials include a Letter to Home for each chapter and provide parents with information on the science objectives of the current chapter and how they can support their child's progress. The Letter to Home for Chapter 9 explains that students will have the opportunity to record and compare how the structures and behaviors of animals help them find and take in food, water, and air. Materials include conversation starters for parents to use with their children. Examples of the conversation starters include, "How does a parade of elephants get what they need to survive?" and "What are different animal structures used for?"
- The Letters to Home also provide extension activities like conversation starters and family activities. For example, in the Letter to Home: Chapter 7, parents are provided information on how their child is learning how the physical characteristics of environments support plants and animals within an ecosystem. The conversation starters include "How do plants depend on wind, water, and other living things?" and "How does the environment support the plants that live there?" The family activity has parents and their child acting out what it would be like to be a butterfly or a bee and travel to pollinate as you go from place to place. The curriculum asks children to write a story about their journey as a pollinator and share it with their friends and family. This activity encourages caregivers to talk with their children to help reinforce learning at home.

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

- The materials provide a K-5 Communicating with Caregivers Guide for teachers. For example, a Welcome Letter provides insight to caregivers on what to expect for their child at school and home for the year. The guide gives parents a great overview of hands-on investigations, chapter themes K-5, how reading and writing are integrated into the science lessons, as well as all of the digital content for both students and parents, along with many other components.
- The K-5 Communicating with Caregivers guide for teachers includes supports for teachers as they establish communication with caregivers of their students. The guide includes templates for sharing assessment results and holding student-led conferences.

#### **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
+	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
-	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 the indicator. Materials include year-long plans with practice and review opportunities that support instruction.

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

Evidence includes but is not limited to:

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

- The Teacher's eBook provides a Table of Contents listing the TEKS-aligned lessons for each chapter. The "TEKS at a Glance" chart at the beginning of each chapter shows the TEKS addressed in each lesson. The chapter overview in the Teacher's eBook includes a TEKS progression chart showing what students have learned previously and how that prior learning connects to current and future learning.
- Materials provide a TEKS-aligned Pacing Guide showing the standards taught within each chapter and a year-long plan for grade 2. Materials guide teachers with suggested time frames for units and lessons and their TEKS alignment. There is also a TEKS Guide that includes the objective to be covered and correlating materials.
- Materials provide a TEKS Correlation and TEKS-aligned scope and sequence that include a
  detailed list of investigations and activities that align to each grade-level science standard in
  teacher and student-facing materials.

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

 Grade 2 materials provide the teacher with science, technology, engineering, art, and math (STEAM) Station ideas in several of the textbook chapters. The STEAM Station resource assists teachers in providing opportunities for students to make connections to scientific and engineering practices.

- The Teacher's Guide highlights recurring themes and science and engineering practices (SEPS) for each unit. For example, the materials contain prompts for an Interactive Word Wall, which connects science and engineering vocabulary to the lesson. The materials integrate engineering opportunities into the lessons. The lesson contains Build-It, Apply-It, and Write About It sublessons for engineering opportunities.
- The materials provide the teacher with Investigation Connection prompts in each chapter of the Teacher's eBook. Investigation Connection prompts provide the teacher with strategies for facilitating student-made connections.

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

- The materials provide review and practice of knowledge and skills within chapters throughout the year. Each grade 2 lesson contains a lesson review on Day 5, with activities like a word wall review, student reflections, and assessment questions. At the end of each chapter, the materials have a digital spotlight with several review and assessment options. Each chapter also offers both online and printed formats for these review-based activities and assessments of skills.
- The materials include intentional practice to support mastery and retention with teacher tips and station options, along with an Interactive World Wall routine that gives students repeated exposure to some vocabulary words.
- For example, in Chapter 1, students design a prototype for a solution to a problem in the Pantry Problem activity. The materials spiral the knowledge and skills later, in Chapter 3, as students apply their learning to complete the Sound Messages activity. To show mastery and retention, students design a prototype for a solution to a problem in the Wind and Water Changes STEM Project.

#### **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.	
1	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 provide teacher guidance and recommendations for the use of all materials
  throughout the text. The materials include overview documents to support teachers in
  understanding how to use all materials and resources as intended. For example, the Program
  Overview highlights all of the resources within the program.
- The Teacher eBook: Grade 1 includes a Chapter Resource Snapshot that provides teacher guidance for program-wide differentiation support. This resource displays how to incorporate research-based instructional strategies such as interactive word walls, guided reading, guided writing, and science notebook enrichment opportunities with cross-content connections. For example, in the Teacher eBook, Chapter 7, Lesson 3, Plant Environments and Ecosystems, Day 1 includes a digital spotlight with an embedded video, "Rainy Forest," to spark curiosity and inspire students to investigate how environments support the plants that live there. Teacher notes are also included to help lead a discussion and guide and help students reflect.
- Grade 1 teacher materials contain a Portable Document Format (PDF) entitled "Supporting All Learners: Equity and Access in Science" that outlines ways to scaffold and support learning for

- all students. It includes instruction suggestions using a Multi-Tiered System of Supports (MTSS) for "supporting students experiencing difficulty with literacy in science and engineering," as well as "strategies for students with special instructional needs."
- Additionally, STEAM Stations provide scaffolds to support and enhance student learning and
  enrichment activities in each grade K chapter. The STEAM activities provide students with
  various ways to extend the lesson while exploring the concepts. An example can be found in the
  Science, Technology, Engineering, Arts, and Mathematics (STEAM) Station 3. Lesson 5.1 allows
  students to use Math, Technology, Art, and Science to extend and enrich their learning.
- The STEAM Stations also include scaffolds, extensions, and strategies for EB/EL students who need language support.

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

- The materials include science standards correlations by chapter, lessons, and activities in the Teacher eBook and the online correlation guides. For example, the Teacher eBook includes the TEKS aligned in the chapter overview section and the lesson overview.
- Materials include a Cross-Curricular Correlations: Grade 2 guide that shows cross-curricular
  correlations between Science, ELAR, Fine Arts, Math, and Technology Applications TEKS. This
  guide identifies where to find correlating lessons, articles, and activities in the student and
  teacher materials. Within the Teacher eBook, for example, Chapter 5, Lesson 1 from the STEAM
  Station option includes a connection to mathematics standards, where students are encouraged
  to create a comic strip using words and pictures to show how mushroom rocks are formed.
  Additionally, Chapter 6, Patterns in the World STEAM activity, shows the Art and Technology
  standards that apply to this science activity.
- The Correlation to English Language Proficiency Standards (ELPS) provides an outline of Englishlanguage proficiency student expectations. It also shows the cross-curricular language acquisition skills that are addressed in science.

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

- Materials include a Chapter Resource Snapshot at the beginning of each chapter in the Teacher eBook: Grade 2. The Chapter Resource Snapshot identifies all instructional resources needed for each chapter lesson.
- Materials include an Investigation Materials List: Grade 2, which downloads as a spreadsheet
  that lists all equipment and supplies needed to support student investigations. The
  comprehensive list of materials for each investigation is organized by chapter, title, and lesson
  number. The materials include beakers, tweezers, rain gauges, thermometers, safety goggles,
  aquariums or terrariums, measuring items, windsocks, nonstandard measuring items, stream
  tables, and hand lenses in that resource and in the chapter resource snapshot section at the
  beginning of the teacher's instructions.
- Additionally, the Plan Your Lesson section includes the list of materials required for the lesson and also has the lesson broken down into days, including pacing for the time required in the lesson.

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

- The materials provide guidance for safety practices and grade-appropriate use of safety equipment during investigations by means of a safety handout. The Tools and Safety Handbook uses grade-appropriate modeling to use safety equipment. For example, in the Tools and Safety handbook for K-2, a description of each piece of equipment is listed, along with a picture followed by a video demonstrating how to use the tool.
- Additionally, the materials contain a safety handout. The handout comprehensively lists and
  outlines safety symbols and identifies any potential safety hazards. The teacher may also
  instruct students to use the grade 2 Student eBook, which includes a safety symbols PDF that
  can be printed or shared digitally.
- A Tools and Safety Handbook is also available in the Student eBook and includes detailed safety
  instructions and student-friendly images. The Tools and Safety Handbook allows the teacher to
  display or assign to the students.

#### **Indicator 8.3**

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

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

## Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- In the Teacher eBook: Grade 2, materials include recommendations for the required time of each lesson in the Plan Your Chapter section at the beginning of each chapter. It also notes the time recommended for each activity within that lesson. These time suggestions are written on the lesson pages along with the teacher's instructions.
- Materials break down the daily lesson into a Teach section and an Assess section, and the
  suggested time is listed in minutes. The grade 2 Pacing Guide shows a "total number of days for
  179. As all classrooms and teachers require choice and flexibility, this information is a general
  guide. The number of days may vary based on options for investigations, use of ELABORATE
  sections, assigned assessments, and implementation of science, technology, engineering, art,
  and math (STEAM) Stations, science, technology, engineering, and math (STEM) Projects, and
  Show What YOU Know activities."
- A disclaimer is found at the bottom of the page, noting it to be a general guide.

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

- Materials include a TEKS at a Glance section at the beginning of each chapter in the Teacher eBook: Grade 2. This chart displays the TEKS taught in each chapter lesson, how they are introduced or taught within each lesson, and recurring themes and concepts.
- The materials do not follow a developmental order but do incorporate the strategic implementation of the process standards. Additionally, the grade 2 Chapter Overview lists the TEKS progression across grade levels.

 Materials include a TEKS Progression chart in the Chapter Overview at the beginning of each chapter in the Teacher eBook: Grade 2. This chart reviews what students have already learned and illustrates the developmental progression of the standards.

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

- Materials include a Pacing Guide: Grade 2 chart that shows the number of days designated for each chapter in the Teacher eBook: Grade 2. The guide shows the total number of days as 179, allowing flexibility for the teacher throughout the year.
- Materials include Teacher Support STEM Project guides to make investigations more flexible.
   These guides include a "Short on Time?" section that guides teachers needing more flexibility with time. The grade 2 lesson materials also allow for review at the end of each lesson on Day 5.

#### **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
1	does not distract from student learning.	
2	Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.	YES
2	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.

- Materials include an appropriate amount of white space and a design that supports and does
  not distract from student learning. For example, the Write About It section in Chapter 1 of the
  Interactive Student eBook: Grade 2 gives a clear title and heading, and sections are clearly
  marked. The content is also organized in a logical progression to support student learning.
- Materials include an appropriate amount of white space and a design that supports and does
  not distract from student learning. For example, the Science Probe section in Chapter 6 of the
  Interactive Student eBook: Grade 2 gives a clear title and heading, and sections are clearly
  marked. The names, faces, and text that each student is saying are clearly defined and easy to
  read for students.

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

- Materials embed age-appropriate pictures and graphics that support student learning and
  engagement without being visually distracting. The Interactive Student eBook: Grade 2 provides
  both photos and pictures with simple labels. For example, the STEM connection in Chapter 1
  includes an illustration of Marie Maynard Daly that students can click on to see an enlarged
  view. There is ample white space around the photo and in between the text.
- The materials include an interactive vocabulary word wall with clear and authentic images and graphics to define and support the new words students are learning. Grade 2 materials include photos that identify the stages of a butterfly, caterpillar, chrysalis, larva, and pupa.

Materials embed age-appropriate pictures and graphics that support student learning and
engagement without being visually distracting. The Interactive Student eBook: Grade 2 provides
both photos and pictures with simple labels. For example, the Claim, Evidence, Reasoning
activity in Chapter 1 includes simple text, bolded headers, and simple graphics that help
students understand the directions.

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

- Materials include digital components that are free of technical errors. For example, when
  browsing through the student assessments, all questions checked loaded properly. The Chapter
  3 lesson review poses a question to students: "Which photo shows something that is not making
  sounds?" The materials had multiple options for the students to choose from, and all of the
  photos and options were visible and functioning.
- Materials include digital components that are free of technical errors. For example, the Interactive Student eBook: Grade 2 includes a heading that says, "What did Marie Daly test in the lab? Watch Meet a Biochemist to find out." There is an image below the heading, and the link to the video redirects students to the video.

#### **Indicator 9.2**

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

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

Evidence includes but is not limited to:

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

- Materials integrate digital technology and tools that support student learning and engagement. Student learning is enhanced with digital tools provided in the Interactive Student eBook: Grade 2. Digital tools include text-to-speech features, digital text read-aloud, highlighting, a dictionary, and a glossary with visuals and simple definitions. These tools are easy to locate throughout the Grade 2 Teacher eBook as well as the Interactive Student eBook: Grade 2. All digital tools are student- and teacher-friendly. Videos are short and cover the content without taking time away from instruction.
- Materials integrate digital technology tools that enhance student engagement and learning. In the Interactive Student eBook: Grade 2, learning activities can be projected on a large screen or displayed on a student device. Students have the option to use the provided box that gives them the capability to choose if they want to write using the text feature or draw. There are different colors to choose from for writing or drawing to increase engagement. For example, the digital Build Your Skill activity in Chapter 1 of the Interactive Student eBook: Grade 2 prompts students to read about how scientists use tools to complete investigations. The digital Build Your Skill provides students with a passage about hot plates and then asks them to answer questions about hot plates and safety in their science notebooks.

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

- Materials integrate digital technology in ways that support student engagement with science
  and engineering practices, recurring themes and concepts, and grade-level content. For
  example, in the Interactive Student eBook: Grade 2, students are provided with a digital
  simulation called Life Cycle: Frog and Butterfly. In this simulation, students are able to practice
  asking questions based on observations from scientific phenomena.
- Materials integrate digital technology in ways that support student engagement with scientific
  and engineering practices. In Chapter 8 of the Interactive Student eBook: Grade 2, a video called
  "Meet a Primatologist" is included to help students understand the contributions of scientists
  such as Jane Goodall and the importance of their research and innovation for society.
- The grade 2 Science materials include Recurring Theme and Concept Music Videos within the lessons throughout the grade 2 chapters. For example, in Chapter 6, Weather and the Sky, Lesson 2, Severe Weather, includes a Recurring Theme Video over "Patterns: Students learn more about the patterns."

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

- The Program Overview explains how the Science Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate. The Program Overview states, "Boundless Science Learning pushes the limits on learning and transports students beyond the walls of your classroom with cutting-edge digital content--including interactives, simulations, videos, and more aligned with lesson topics and designed to spark curiosity, support discussion, enhance review, and deepen understanding." There are simulation videos, math replay videos, learn smart, virtual field trips, interactive graphics, word lab, and anytime investigation videos.
- Materials integrate digital technology that provides opportunities for teachers and/or students
  to collaborate. For example, materials provide a Kahoot!: Premier Partnership for grades K-5.
   Students have access to multiple learning games and quizzes through Kahoot!, a platform that
  allows them to collaborate with their peers. Topics of games included in the membership
  include Plant Structures and Functions, Phases of the Moon, and Interactions in Ecosystems.
- Materials integrate digital technology that provides opportunities for teachers and/or students
  to collaborate. Materials include several digital activities in the Interactive Student eBook: Grade
  2 that prompt students to share their work with a friend. For example, the Chapter 2 Explain
  activity asks students to view a video about solids and liquids and then record the evidence they
  gathered from this video in their science notebooks. The materials then prompt students to
  share their reasoning with a friend.

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

 Materials integrate digital technology that is compatible with a variety of learning management systems. The materials are accessible and compatible with Chromebooks, iPads, PCs, Apple computers, smartphones, and any other device with internet access.

Materials can work with many different technologies, providers, and platforms that support
either SAML 2.0(IDP) or LTI 1.0 and contain a unique identifier that is stored in the Student
Information System (SIS). Examples of directory services, Learning Management Systems (LMS),
and Identity Providers they work with include Active Directory Federation Services (ADFS),
Microsoft Azure, Google, ID Automation, Hello ID, ClassLink, Schoology, and Canvas for SSO.

#### **Indicator 9.3**

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

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

- Digital technology and online components included in the materials are developmentally appropriate for the grade level. For example, in the Interactive Student eBook: Grade 2, the text is written at a second-grade reading level, and the interactive tools are appropriate for the age and stage of a 7- to 8-year-old child. In Chapter 4 of the Interactive Student eBook: Grade 2, students are invited to engage with a lesson review that incorporates age-appropriate graphics and basic technology skills, such as clicking and typing brief sentences.
- Materials include digital technology that is developmentally appropriate and aligns with the
  scope and approach to science knowledge skills and progression. For example, the Interactive
  Student eBook: Grade 2 incorporates several videos that illustrate science concepts in a childfriendly way. The Explain section in Chapter 7 of the Interactive Student eBook: Grade 2
  incorporates a video called "All About Plant Parts." The video begins by showing children a
  Venus flytrap eating a spider. The narrator speaks in an engaging way and uses simple scientific
  terms to help students understand the concepts. Students are prompted to respond to the
  video by recording evidence they gathered from the video in their science notebooks.
- The materials provide information that identifies how online and digital components align with grade-level science knowledge and skills. The materials provide related TEKS for online and digital components within the Teacher's Guide. In Chapter 9, the materials guide the teacher to use the interactive word wall with students for the theme of cause and effect. The focus TEKS is listed in the bottom corner for this activity/lesson.

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

- Materials include teacher guidance for the use of embedded technology to support and enhance student learning. For teachers to find this information, they will access the publisher's Digital Technical Support Site. On this site, teachers can find many links to help with supporting and enhancing student learning and troubleshooting if they run into any problems.
- Materials include professional development videos and training for teachers to continue to
  develop their skills and knowledge in using the embedded technology to support and enhance
  student learning. Materials also include other resources that provide ongoing support and
  guidance. All of these resources can be found on the publisher's Digital Technical Support Site.

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 in using McGraw Hill's Digital Technical Support
  for accessing and engaging with the 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. The materials do not include any webinars, videos, online access, Q&A, or any other resources digitally for parents and caregivers.
- Materials include a Letter to Home for each chapter in the Interactive Student eBook: Grade 2, that addresses digital technology and online components in the materials. Parents can also access digital student resources using their student's credentials.