McGraw Hill Texas Science Grade K

McGraw Hill Texas Science Grade K Executive Summary

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

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

Section 2. Instructional Anchor

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

Section 3. Knowledge Coherence

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

Section 4. Productive Struggle

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

Section 5. Evidence-Based Reasoning and Communicating

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

Section 6. Progress Monitoring

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

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- 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.

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Indicator 2.1

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

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

Meets | Score 4/4

The materials 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 K. For example, students shine a flashlight on various objects to determine how the object will affect the light. 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 4, where students observe rocks with a hand lens and describe and classify the rocks.
- Materials provide students multiple opportunities to work towards mastery of science and engineering practices (SEPS) through Build Your Skill pages. For example, in the Interactive Student eBook, students ask questions and define problems based on observations from

models, and in Chapter 4 of the open inquiry, students write their own explorable questions and plan their own investigation.

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 TEKS guide includes specific information about when recurring themes are introduced. For example, the kindergarten materials utilize patterns as a recurring theme. In Chapter 5, students observe the phenomena. The materials generate questions such as "What do you observe?" "How can you tell it is Fall in the photo?" and "What else happens in the fall?" 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 K. 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.
- In grade K materials, the teacher instructs using Recurring Themes and Concepts that directly teach and appear throughout the lesson activities in the Explore section. Then, in the Explain part of the lesson, students make connections between and within the overarching concepts. The grade K Lesson 1, Day 9 covers the recurring themes of patterns, cause and effect, scale, proportion, and quantity. 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.
- The Grade K TEKS 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 Correlation lists the TEKS and which phenomena activity correlates with them. For example, TEKS K.5 includes hands-on investigations and activities for Night and Day, Life of a Lima Bean, Who is Your Parent Plant, Bits and Pieces, and Weather Watch, as well as several others.

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

- Each chapter of the Teacher eBook: Grade K includes Science, Technology, Engineering, Art, and Math (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 rocks to engage in problem-solving and make connections, and then they plan and conduct an investigation into making a noise maker.
- Materials contain a Hands-On Investigation Library: Grade K 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 deepen their understanding of scientific concepts.

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Indicator 2.2

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

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

Meets | Score 4/4

The materials meet the criteria for 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 K materials embed phenomena and provide opportunities to develop, evaluate, and revise their thinking as they engage in phenomena throughout the chapter. The hands-on investigations, graphic organizers, photos, and science notebook activities can all be utilized during the course of the lessons and chapters as the students define and solve problems. To find these things, the materials provide an Interactive Student eBook: Grade K that integrates phenomena into each lesson. For example, Chapter 5 of the Interactive Student eBook: Grade K opens with the question, "How does weather affect kites?" 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 practices through the lens of recurring themes. In grade K, students begin investigating how objects change how light travels. The recurring theme of cause and effect is used throughout the lessons. For example, in Lesson 1 of the Teacher e-Book: Grade K, students use scientific practices to identify types of weather. Students are presented with phenomena through observation. In the Teacher e-Book: Grade K, the Engage activity presents opportunities to

observe weather phenomena. Additionally, at the end of each chapter, students record conclusions using Lesson Foldables, Show What You Know reflection questions and discussions, and/or science, technology, engineering, and math (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 K. 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 4, Lesson 1, the Classify Rocks Probe helps students uncover how to organize and sort rocks by different properties.
- Grade K 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 e-Book: Grade K, 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 of the Teacher e-Book: Grade K, 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, which 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 K, a lesson on magnets 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.

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Indicator 3.1

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

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

Meets | Score 6/6

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 K Table of Contents is intentionally sequenced for students to increase conceptual understanding. For example, the Table of Contents for Chapter 3 begins by introducing Daily Weather in Lesson 1, then moves to Weather Changes in Lesson 2, Seasons in Lesson 3, and, finally, in Lesson 4, students explore Air All Around Us and how the previous lessons affect or cause changes in the air around us. This provides a systematic and layered instructional approach to help students create deep understandings.
- 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-level TEKS, and covering units and content areas.

- In each chapter of the Teacher eBook: Grade K, 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.

- Lesson materials are outlined in a way that allows for increasing conceptual understanding. In the Chapter Overview of the Teacher eBook: Grade K, students are first asked to observe and describe the weather in Lessons 1–3. In Lesson 4, students are asked to identify and demonstrate a certain type of weather. A section titled “Common Misconceptions” is listed in the lesson materials to support teachers as they scaffold student learning.
- The materials sequence instruction in a way that activates or builds prior knowledge before explicit teaching occurs that allows for increasingly deeper conceptual understanding. For example, a lesson on objects in the sky begins with students observing a photo and video of the objects in the sky. Students respond to questions that activate their background knowledge about objects observed in the sky. The students discuss in groups the things they can see in the sky during the day and the night. This leads students into the exploration investigation.

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 science and engineering practices (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 visual literacy that the materials provided. In the Elaborate phase, students connect their learning through writing prompts from the science, technology, engineering, and math (STEM) connection. The Evaluate phase provides an opportunity for students to reflect on their learning. Students in kindergarten review what they learned about the sun, moon, clouds, and stars by answering the Essential Question: What can you observe in the sky?
- Materials include a TEKS Correlation: Grade K document that displays all of the kindergarten grade-level correlations. These include the core concepts, Recurring Themes, and Concepts, as well as Scientific and Engineering Practices. This document shows where these standards are found in both teacher and student-facing materials. Each chapter in the Teacher eBook: Grade K 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 K begins with an Essential Question to focus student understanding throughout the materials. The Essential Questions are within the main

boundaries of the grade-level TEKS. For example, the Essential Question for Lesson 1 in Chapter 8 of the Teacher eBook: Grade K asks students, “What are the needs of animals?” This question directly ties to the standard K.12B, which asks students to “observe and identify the dependence of animals on air, water, food, space, and shelter.”

- 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 6, for kindergarten, students will observe, describe, and illustrate objects in the sky.
  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 identify, describe, and predict the patterns of day and night.”
- Materials provide multiple opportunities at the end of each lesson in the Teacher eBook: Grade K for students to demonstrate mastery of a concept. These opportunities include both formative and summative assessments that are directly tied to the Kindergarten TEKS.

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Indicator 3.2

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The Teacher eBook: Grade K offers 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 K, 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 K, it does not display the specific TEKS associated with each chapter or demonstrate how they are horizontally aligned. To address this, the Teacher eBook: Grade K 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.

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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 K, 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 supports teachers' subject knowledge of the scientific concepts they are expected to teach.
- Materials incorporate the Page Keeley Science Probe, which identifies possible misconceptions or conceptual barriers that could limit students' understanding of concepts. For instance, in Chapter 1, the grade K teacher explanation helps teachers understand common misconceptions students may have when describing color and shape. An example provides guidance for the teacher, such as "students who select Maria may recognize that shape can be identified with touch but fail to recognize that touch does not reveal color."

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, using examples like the Claim, Evidence, and Reasoning 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. For instance, Chapter 8 launches with a video titled "How Do Animals Live in the Ocean?" as a part of a recurring theme. This snapshot helps teachers understand the resources available and plan their instruction accordingly.

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Indicator 4.1

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

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

Meets | Score 4/4

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

Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers. Materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop 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 K, Lesson 7.1. 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 3 of Everyday Force and Energy includes independent reading books and a Write-About-It section.
- Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers. For example, in Chapter 6 of the e-Book, students watch the STEM Connection Video. Then, they communicate in writing what they

learned. Additionally, every chapter in the Interactive Student eBook: Grade K provides students with Hands-On Investigations and multiple opportunities for sensemaking through reading and writing connections.

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 K. For example, the STEM Connection in Chapter 4 provides students with an opportunity to read about GrowNYC, which is a New York City non-profit that grows fresh fruits and vegetables. The text format is appropriate for kindergarten readers, and there is an opportunity for students to have the text read aloud to them. These STEM Connections are listed multiple times throughout the Interactive Student eBook: Grade K and provide students with several opportunities to gather evidence and develop their understanding of scientific concepts.
- 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 2 of Chapter 7, students observe a plant, fruit, and seed with a hand lens and identify its parts.
- The grade K teacher materials include a “Hook Them With Books” section in the Teacher eBook that provides leveled books for the current topic. For example, Chapter 2, Properties of Objects, includes books for Lessons 1 and 2 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 K students use the Claim, Evidence, and Reasoning (CER) routine in every lesson to combine reading, writing, thinking, and acting like scientists and engineers. In this example from Chapter 3, Lesson 3, students investigate how light affects objects, find evidence by reading about transparent and opaque objects, and use reasoning skills to conclude that some objects block light and some objects let light pass through. They use the Guided CER Graphic Organizer to write about their thinking.
- Materials provide opportunities for students to communicate thinking on scientific concepts in written and graphic modes. For example, Chapter 7 uses a graphic organizer in the Hands-On Investigation. Students complete the chart and then identify the parts of the plant by labeling its parts by name and drawing a picture.
- The Interactive Student eBook: Grade K provides students with multiple opportunities to communicate their processing of scientific concepts through written, graphic, and digital modes. For example, Chapter 5 of the Interactive Student eBook: Grade K includes a Chapter Preview section where students respond to a video about how weather affects kites. Students are invited to digitally add text and drawings to communicate their responses and are encouraged to share their thinking with a friend.

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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 K provides students with Hands-On Investigations that allow them multiple opportunities to productively struggle as they develop scientific concepts. For example, in Chapter 2 of the Interactive Student eBook: Grade K, students are asked to explore objects, group them by color, and record their data. In order to support students as they productively struggle while developing scientific concepts, teachers are provided with Guided and Open Inquiry Options in the Teacher eBook: Grade K. In the Guided and Open Inquiry section, teachers are given prompts to assist students as they explore and plan their own investigations.
- 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 a script and produce an instructional video for an assigned topic, thus having students brainstorm things they can teach to other students.
- In Chapter 2, Lesson 1 of the Teacher eBook: Grade K, teachers are provided with an assessment at the end of the lesson. In this assessment, teachers utilize a Quick Check, where students are asked to describe the physical properties of an object using vocabulary words. Teachers are prompted to support students by asking them to utilize the Interactive Word Wall if they are struggling to use scientific vocabulary words that they have learned previously or within the current unit.
- In Chapter 1, Color and Shape, students use the science, technology, engineering, art, and math (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, “Bits and Pieces,” 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.

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Indicator 5.1

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

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

Meets | Score 4/4

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

Materials prompt students to use evidence to support their hypotheses and claims. Materials include embedded opportunities to develop and utilize scientific vocabulary in context. Materials integrate argumentation and discourse throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level. Materials provide opportunities for students to construct and present developmentally appropriate written and 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 K, 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 K 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 their lessons. They are then asked to gather evidence that supports their claim during the Explain portion of their lesson. 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 7.3 from the Interactive Student eBook: Grade K includes the sentence stem, "From the infographic, I learned…" This sentence stem prompts students to look back at a plant infographic 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 K Hands-On Investigation, students use evidence to explain whether their results supported their prediction. In the Teacher eBook: Grade K, the Hands-On Investigation in Chapter 1 called "One Potato, Two Potato" prompts teachers to ask students, "Did your results from the investigation support your prediction? Use evidence to explain why or why not." Grade K student and teacher materials prompt students to use evidence to support their hypotheses and claims. 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. An example of these opportunities is 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. For example, in Chapter 2 of the Teacher eBook: Grade K, teachers are provided prompts to use before, during, and after reading a science text with students that assists them in developing scientific vocabulary in context.
- In the Interactive Student eBook: Grade K, key vocabulary is highlighted at the top of the page in isolation and then used within text, along with pictures of the topic. For example, for Properties of Soil, the Interactive Word Wall includes the words color, object, physical property, shape, and size. The Interactive Word Wall then uses each word in context. An example of words being used in context is "Now, read to learn more. Look around you. Everything you see is an object. Objects have physical properties." 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, in the Teacher eBook: Grade K, the materials provide 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 move towards citing evidence they observe through scientific inquiry. In Chapter 5, students explore how weather changes from day to day. Teachers are provided with questions like, "What questions did you have when you observed the photo of stormy weather?" "Can you find an answer to your question by making an observation?" and "What tools did you use to observe and measure weather?"
- In Chapter 2, Lesson 2, Day 1, the Engage section of the lesson plan includes the Talk About It icon and prompts the teacher to integrate argumentation and discourse by starting a discussion. The materials state, "Start a class discussion. Ask: How can you describe the tennis racket? Sample answer: It has hard metal parts. Ask: How might you compare the soccer ball and the tennis ball? Sample answer: The tennis ball is fuzzy. The soccer ball is not fuzzy. It is smooth. As

students discuss their observations of the sports equipment, encourage them to share ideas." 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 K, materials provide a Talk About It section in each chapter that provides prompts for assisting teachers as they start a discussion with students. 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 K 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 K, 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 Move the Car in Chapter 3, students record their claims, citing evidence from the investigation, and are provided an opportunity to share in the Communicate section of the investigation.
- 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 K provides a STEM Project. The STEM projects scaffold students to plan investigations related to the science content, ask them to identify the problem or phenomena, record their process, and report their results.

McGraw Hill Texas Science Grade K

Indicator 5.2

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. In the Assess section of Lesson 1 in Chapter 4 of the Teacher eBook: Grade K, 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 them, "How do people use rocks and soil?" The materials prompt teachers to have students share their thinking with a partner or in a small group and provide the sentence stem "I claim that…." The teacher records student responses on chart paper.
- In grade K, 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 Interactive Word Wall activity listed in Lesson 1 of Chapter 5 of the Teacher eBook: Grade K, teachers are provided with sample questions to ask students related to the scientific content and provided sample student responses. For example,

teachers are provided with the sample question, “How did you use observations to sort different kinds of weather?” A sample student response is, “I observed the sky in the photos.” Several sample questions are provided 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 6, Lesson 1, the Build a Frame section guides the teacher to use word-learning strategies before, during, and after the text and guiding questions to spark connections among vocabulary, concepts, and students' experiences. The materials prompt teachers to ask questions like, “What's another word for illustration?" and "How does illustrating objects in the sky help you describe the sky?”
- 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 K 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 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 K.

- The materials provide sentence stems for teachers to use when prompting students to construct written and verbal claims. Each chapter launch includes a video for the students to view. In Chapter 6, before the teacher plays the video, the materials guide the teacher to share any observations made about the moon. Students share their thoughts about the moon after the video. 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 objects in the night sky…” “I think day and night…” “I think the Sun can only be seen…”

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 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 students’ grade and developmental levels. 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 Claim, Evidence, and Reasoning (CER) provides teachers with the organization and potential student answers for each lesson. In Chapter 5, Lesson 3, the students analyze weather data and identify how weather changes from season to season. 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, the STEM Project: Design a Terrarium has students use their understanding of what plants need and life cycles to build an aquarium. The Teacher Support STEM Project: Design a Terrarium guide includes sample student responses such as, “Our bean plant started as a seed. When it sprouts, it is a seedling. Then a small flower grows.”

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Indicator 6.1

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

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

Meets | Score 2/2

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

Materials include a range of diagnostic, formative, and summative assessments 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 K, students are given a pre-assessment for Lesson 4.1 in the form of a Page Keely Science Probe, where their understanding of the properties of rocks is assessed. Materials also provide a Lesson Review assessment for Lesson 4.1 to measure student learning. Pre-assessments and lesson reviews are provided for each lesson within each chapter of the Interactive Student eBook: Grade K. A summative assessment for Chapter 4 is also provided.
- The materials include summative assessments in a variety of formats. Grade K materials provide teacher guidance for students in the Show What You Know, STEM Projects, and chapter tests. For example, in Chapter 2, Properties of Objects, the teacher assesses student growth in scientific knowledge through Name That Game, where they build a prototype. 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 K, a section called Check for Understanding is provided as a form of

informal assessment. In Chapter 4, Lesson 1, teachers are prompted to have students use the 3-Column Chart graphic organizer to demonstrate their understanding of how rocks can be described and classified. Teachers are provided a sample student response as well as a section titled Reinforce that provides support for students who are not able to name different ways to describe and classify rocks.

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 Texas Essential Knowledge and Skills (TEKS) Correlations: Grade K guide that lists all of the Kindergarten Science TEKS and where these TEKS are taught in both the student and teacher materials. Every lesson in the Teacher eBook: Grade K is correlated to the Kindergarten 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 K includes a summative assessment that lists all of the standards it aligns to. For example, in the Chapter 7 STEM Project, the students are assessed over TEKS K.12A, where they observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow.

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 materials provide science, technology, engineering, and math (STEM) Projects. In these STEM Projects, students show their understanding of recurring themes and concepts as they utilize SEPs. In the STEM Project: Name That Game, from Chapter 2 of Properties and Objects, students use their understanding of physical properties to create game pieces. 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 Kindergarten 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: Helpful Magnets, students use their understanding of how magnets can pull objects to create a tool to retrieve Ana's mom's metal spoon from behind the stove. 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.
- The Build Your Skill activity in the Interactive Student eBook: Grade K includes questions that tie in core science concepts, SEPs, and recurring themes. Teacher materials provide supportive guidance for the assessment. For example, in Chapter 8, Lesson 2, the Build Your Skill activity for Animal Structures integrates the scientific and engineering practices by asking questions and defining problems as students use the recurring theme and concept, describing the relationship between structure and function of objects, organisms, and systems to understand the core concepts and identifying different structures that animals have that allow them to interact with their environment.

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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 K includes a Show What You Know assessment in the Chapter Review section. The Show What You Know activity assessments ask students to connect the chapter's scientific content to their everyday lives. For example, in Chapter 1, the Show What You Know assessment asks them to write a notebook entry, make a collage, or perform a puppet show to answer the question, “How do science and innovations help you?” 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 K includes multiple Write About It activities that can be used as assessments. The Write About It activity found in the STEM Connection in Chapter 2 of the Teacher eBook: Grade K asks students to create a video game character, identify different colors and shapes used to create the character, and apply scientific vocabulary in this novel context.

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Indicator 6.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include information and/or resources that provide guidance for evaluating student responses. In the grade K materials, a summative assessment is provided in the form of a Show What You Know activity in each chapter of the Teacher eBook: Grade K. 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 and science, technology, engineering, and math (STEM) Project 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 K, 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 2, an Essential Question Check-In is provided as a formative

assessment option. Students are asked to use a T-chart graphic organizer to demonstrate their understanding of classifying objects by materials and texture. 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 show how to classify objects by material and texture watch the So Many Textures instructional video again.

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 support 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 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 support teachers' analysis of assessment data with guidance and direction to respond to individual student's needs in all areas of science based on measures of student progress appropriate for the developmental level. For grade K, the Emergent Bilingual/English Learner (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 analyzing an assessment. 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 to use 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 reports 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 K that provide intervention and extension activities, they are found sporadically with minimal teacher guidance provided.
- Diagnostic tools in the grade K teacher and student materials provide teachers with information to plan instruction. Students complete pre-tests that assess their understanding of foundational knowledge that supports the progression of the TEKS. In addition, each chapter contains Page Keeley Science Probes that provide a quick diagnostic measure on which teachers can base their instruction.
- 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.

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

- The grade K materials provide resources and teacher guidance on leveraging different activities to respond to student data. For example, the Teacher eBook: Grade K contains 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 K, teachers are given a Reinforce activity for students who cannot classify objects by material and texture. The activity prompts teachers to show these students the So Many Textures learning video again.
- Materials provide a variety of science, technology, engineering, art, and math (STEAM) Stations that reinforce, extend, and differentiate student understanding of science concepts. Teacher guidance helps determine which activities in the program to assign to students when they have difficulty answering questions when the teacher checks for understanding. For example, the Chapter 5, Lesson 3 STEAM Station Teacher Support provides a differentiated Reinforce and/or Extend activity for each station to use to intervene or accelerate learning. For additional guidance on how to leverage the activities, each STEAM Station Teacher Support also includes a "What to Expect" section that provides a summary of what students will do, as well as targeted support, such as additional tips on administering the activity, guided questions to ask students, and suggestions for peer evaluation. This STEAM Station Teacher Support is provided for the STEAM stations included with each lesson.
- 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 K.10A, Properties of Rocks, Lesson 1, there are several suggestions to support students using cognates, word parts, word origins, 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.

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Indicator 6.3

Assessments are clear and easy to understand.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include assessments that contain items that are scientifically accurate and free from errors. The Lesson Review for Lesson 5.2 in the Teacher eBook: Grade K asks students to decide which weather tool assesses if the weather is becoming hotter or colder. The options provided for students are a wind sock, a thermometer, and a rain gauge.
- Materials contain items that are free from errors. For example, in the Chapter 4 Test in the Teacher eBook: Grade K, students are provided a photo of a family washing their dog. The question asks them to observe the photo and decide which use of water the photo is illustrating. Their choices are growing plants, drinking, or cleaning.
- Grade K assessments contain items that are scientifically accurate, avoid bias, and are free from errors. For example, the Chapter 6, Lesson 1 Review asks the student to “Select the items worn to help stay warm in cold weather.” Answer choices include images of shorts, mittens, t-shirts, and a scarf. This question is scientifically accurate and factual with no bias or errors.

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

- Grade K 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 K students because they are age appropriate. For example, the Chapter 6, Lesson 1 Review asks students to identify types of clothing that keep us warm. The materials provide age-appropriate images of shorts, mittens, a t-shirt, and a scarf.

- Materials provide assessment tools that use clear pictures and graphics that are developmentally appropriate. The Chapter 1 Test in the Teacher eBook: Grade K includes a clear, developmentally appropriate photo of a young boy wearing goggles and holding a beaker.
- Materials include assessment tools that use clear pictures and graphics that are developmentally appropriate. The Chapter 1 Review in the Interactive Student eBook: Grade K shows a photo of a rainforest next to a graphic displaying a model of a mountain.

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

- Materials provide guidance to ensure consistent and accurate administration of assessment tools. For example, 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. This 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

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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.

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Indicator 7.1

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

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

Meets | Score 2/2

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

Materials provide recommended targeted instruction and activities to scaffold learning for students who have not yet achieved 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 K 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 2 of the Teacher eBook: Grade K provides teachers with an activity supporting students struggling with sorting objects by color, shape, and size.
- Materials provide additional resources for targeted instruction and differentiation to support students who still need to achieve mastery. For example, in Chapter 6, Lesson 1, under Checking For Understanding, teachers can use the Concentration Game organizer if students cannot identify objects in the sky.
- The Supporting All Learners: Equity and Access in Science K-5 Portable Document Format (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, students with hearing and visual difficulties, and 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 grade K materials within the Guided Write About It! sections, scaffolded writing activity pages help all students write about their discoveries, graphic organizers help students organize their thinking, and leveled science readers and articles provide high-interest science content about STEAM topics. In the student edition, the students can 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.

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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 K. For example, in Chapter 3, Lesson 1, the curriculum offers a cross-curricular STEAM Station for students ready for enrichment. This activity asks students to count and compare magnetic and non-magnetic objects they sorted and compare with a partner. STEAM Stations are provided throughout every chapter in the Teacher eBook: Grade K and offer multiple opportunities to extend and enrich learning experiences for students of all levels.
- Throughout the grade K materials, the Guided Write About It! section provides scaffolded writing activity pages to 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 K 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 2, Properties of Objects, the learning is extended by having students draw a group of objects in their notebooks, including one that does not belong, and see if their partner can determine the object that should not be there.
- The Teacher eBook: Grade K provides numerous activities labeled “Extend.” The Extend activity in Chapter 3, Lesson 1 of the Teacher eBook: Grade K provides teachers with an enrichment activity that asks students to explore multiple objects made of different materials to decide if they are magnetic or not magnetic.

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 K includes Guided and Open Inquiry Options for teachers in Chapter 4, Lesson 1. The materials guide teachers with verbal prompts that support students attempting to plan their scientific investigations. The materials guide teachers to ask students, “Can you find an answer to your question by making observations or doing a test?” 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 K STEAM stations included throughout grade K 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 grade K Hand-On Investigations in the Teacher eBook: Grade K, the materials give teachers opportunities for a guided lesson approach for students who need enrichment that allows for differentiation.

McGraw Hill Texas Science Grade K

Indicator 7.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Every chapter in the Teacher eBook: Grade K provides options for science, technology, engineering, art, and math (STEAM) stations. 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 4, Lesson 1 of the Teacher eBook: Grade K provide various ways for students to master their understanding of the properties of rocks. 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 for them to consider and then return to later in the lesson. For example, in Chapter 4, the probe invites students to think about which physical properties they can use to sort rocks. When the students revisit the probe, they identify three properties they used in their investigation to sort rocks.
- Materials include multiple Digital Spotlights in each chapter of the Teacher eBook: Grade K. These Digital Spotlights are video clips that introduce and reinforce specific science concepts and engage students in the mastery of various scientific concepts. For example, in Chapter 4,

Lesson 1, students watch a Rock Art video clip. This video clip inspires students to investigate how they can use rocks as art.

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 K to pull students that fit into those groups. It should be noted that the teacher would determine this rather than the grade K 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 structure 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 8, students identify animal structures that allow them to interact with their environment. The materials include guided and open inquiry. In the guided inquiry, the teacher asks, “What body parts help animals see, hear, move, and hold things?” Students write their explorable questions during 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 K positively portray a diverse group of scientists and engineers in the STEM Connection sections. In Chapter 1, the materials highlight African-American scientist and inventor George Washington Carver.
- 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, throughout the Interactive Student eBook: Grade K are photographs of a diverse group of students.
- Materials represent diverse people and communities. For example, the Multiple Perspectives section of Chapter 8 shows how people meet the needs of their pets. The teacher asks the students how their families meet the needs of their pets. The students learn about animals worldwide and how they meet their needs. The teacher gives the example of the koala and its

home in Australia, along with how they meet their needs with food from the leaves of the Eucalyptus tree. Students learn that chimpanzees live in Africa in the forest and grassland.

- The grade K materials include images, videos, cartoons, and photos of children, adults, and places worldwide. They have many cultures, ages, and historical and current figures.

McGraw Hill Texas Science Grade K

Indicator 7.3

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include 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 K, 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 about the vocabulary words in the chapter and introduce them to new words through activities. Chapter 5 of the Teacher eBook: Grade K guides the teacher to discuss the seasons and different types of weather by looking at various photos in the chapter. For the Intermediate English Learner (EL), the teacher provides students with sentence stems to discuss the four seasons and different types of weather.
- Teacher guidance for linguistic accommodations in grade K is included in the leveled supports on the Lesson Differentiation page, helping to build meaning and support language development. For example, this page lists the ELPs covered during the Explain and Elaborate portion of the lessons. 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.

McGraw Hill Texas Science Grade K

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 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 Chapter 7, Lesson 1, the materials include a teacher note that 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.

McGraw Hill Texas Science Grade K

Indicator 7.4

Materials guide fostering connections between home and school.

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

Meets | Score 2/2

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

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

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.
- The Letter to Home also 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 6, Patterns in Our Natural World, the Letter to Home informs parents of the concepts, vocabulary, and standards covered in this chapter. "Our class is learning about the patterns in the sky, including the pattern of day and night. Throughout this chapter, students will have the opportunity to identify, describe, and predict the patterns of day and night and their observable characteristics." The materials allow teachers to download the letter into a Microsoft Word file, which allows for translating 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, including information on the science objectives of the current chapter for parents and how they can support their child's progress.

- The Letters to Home also provide extension activities like conversation starters and family activities. For example, in the Letter to Home: Chapter 4, parents are provided information on how their children learn about the importance of rocks and soil. The conversation starters include questions like, “Why are rocks and soil important to us?” and “How can we use rocks and soil?” The family activity has parents ask their children to draw a picture of creating a diorama with rocks, soil, and water. Then, the materials prompt the parents to ask their child to present what they made, explain how it works, and explain why the items are important. These prompts encourage 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.

McGraw Hill Texas Science Grade K

Indicator 8.1

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

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

Meets | Score 2/2

The materials meet the criteria for 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 K. 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 K materials give the teacher science, technology, engineering, art, and math (STEAM) Station ideas in several textbook chapters. The STEAM Station resource assists the teacher in providing opportunities for students to make connections to scientific and engineering practices.

- The Teacher's eBook 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 lessons contain Build-It, Apply-It, and Write About It sub-lessons 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 K 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 learn about models and complete the activity, Build a Noisemaker. The materials spiral the knowledge and skills later, in Chapter 6, as students apply their learning to build a model of day or night in the Build Your Skill activity. To show mastery and retention, students build a model in the Sun, Earth, and Moon Model STEM Project.

McGraw Hill Texas Science Grade K

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

Meets | Score 2/2

The materials meet the criteria for 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 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 K 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, the Chapter 1 Launch section includes a digital spotlight with an embedded video, “How Do Inventors Help Others?” along with teacher notes on how to best utilize this video.
- Grade K 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 a variety of ways to extend the lesson while exploring the concepts. An example can be found in the Science, Technology, Engineering, Arts, and Mathematics (STEAM) Station 1. Lesson 8.1 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 K 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 strengthen their counting and weather observation skills by counting and writing the number of kites, snowflakes, flowers, and raindrops. 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 English-language 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 K. The Chapter Resource Snapshot identifies all instructional resources needed for each lesson of the chapter.
- Materials include an Investigation Materials List: Grade K, 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. For example, the teacher can find a list of materials that includes beakers, tweezers, rain gauge, thermometer, safety goggles, aquarium or terrarium, measuring items, windsock, nonstandard measuring items, stream table, and hand lens in that resource and in the chapter resource snapshot section at the beginning of the teacher 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.

McGraw Hill Texas Science Grade K

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 K 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.

McGraw Hill Texas Science Grade K

Indicator 8.3

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

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

Meets | Score 2/2

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

Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities. Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following 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 K, 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 amount of time recommended for each activity within that lesson. These time suggestions are also 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. Lessons include a "Short on Time?" section that guides the teacher, who may need more flexibility with time.
- The grade K Pacing Guide shows a "total number of days for as 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, noting it as 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 K. This chart displays the TEKS taught in each lesson of the chapter, 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 K 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 K. This chart reviews what students have already learned and illustrates the developmental progression of the standards.
- To help the teacher manage the lessons within the teaching time available, in the grade K Teacher eBook, the Hands-on activity in Chapter 4, Lesson 1 gives the teacher a note: “If short on time” for the teacher to do the activity “as a class during circle time and omit to view the rocks with a hand lens.”

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

- Materials include a Pacing Guide: Grade K chart that shows the number of days designated for each chapter in the Teacher eBook: Grade K. 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 K lesson materials also allow for review at the end of each lesson on Day 5.

McGraw Hill Texas Science Grade K

Indicator 9.1

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

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

Not Scored

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

Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. Materials include digital components that are 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 K 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. Students are provided with tools to annotate text, such as highlighting, making notes, and using the text read-aloud feature.

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 K provides both photos and pictures with simple labels. For example, the STEM connection in Chapter 1 includes a photo of George Washington Carver 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 K materials include photos that identify the things that plants need: nutrients, space, and sunlight.
- Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. The Interactive Student eBook: Grade K 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, the Lesson 2 Review for Chapter 5 of the Interactive Student eBook: Grade K poses a question to students: “How did the weather change from Monday to Tuesday? Choose the best answer.” All images were present, and the student was able to choose the best answer.
- Materials include digital components that are free of technical errors. For example, when browsing through the lesson reviews, the pictures all appeared and were able to be interacted with. The Chapter 4, Lesson 1 review poses a question to students: “What word describes the shape of this rock?” The photo of the rock did appear and was usable.

McGraw Hill Texas Science Grade K

Indicator 9.2

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- 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 K. 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 Teacher eBook: Grade K as well as the Interactive Student eBook: Grade K. 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 K, 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 K prompts students to create a graph of their favorite vegetables. The digital Build Your Skill activity provides students with prompts for creating a graph and then asks them to record the graph in their science notebooks.

McGraw Hill Texas Science Grade K

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 K, students are provided with a digital simulation called Terrarium Gazing. 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 K, a video called “Jennifer Adler's Long Profile” is included to help students understand the contributions of scientists and the importance of their research and innovation for society. The short video documents the importance of the work Jennifer Adler does as a conservation photographer.
- The grade K Science materials include Recurring Themes and Concepts Music Videos within the lessons throughout the chapters. For example, materials include a music video titled “Energy” in Lesson 2 of Chapter 3. Students listen and learn about the recurring theme and concept that energy comes in different forms.

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 labs, 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 K that prompt students to share their work with a friend. For example, the Chapter 2 Preview asks students to digitally draw an image of what they saw in a video and share it 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.

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Indicator 9.3

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Digital technology and online components included in the materials are developmentally appropriate for the grade level. For example, in the Interactive Student eBook: Grade K, the text is written at an emergent reader level, and the interactive tools are appropriate for the age and stage of a 5- to 6-year-old child. In Chapter 1 of the Interactive Student eBook: Grade K, students are invited to interact with an infographic that includes simple pictures and only requires students to point and click.
- 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 K incorporates several videos that illustrate science concepts in a child-friendly way. The Chapter 5 Preview incorporates a video called “How Does Weather Affect Kites?” The video displays images of young children playing with kites, and a child's voice narrates it. Under the video, students are prompted to digitally illustrate what they saw in the video and then share it with a friend.
- 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 5, 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.

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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 K, that addresses digital technology and online components in the materials. Parents can also access digital student resources using their student's credentials.