HMH Into Science Texas 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.

• The assessments are clear and easy to understand.

Section 7. Supports for All Learners

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

Section 8. Implementation Supports

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

Section 9. Design Features

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

Section 10. Additional Information

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

Indicator 2.1

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

1	Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS.	М
2	Materials provide multiple opportunities to make connections between and within overarching concepts using the recurring themes.	М
3	Materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS.	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.	М

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials engage students in hands-on activities that allow them to practice and demonstrate scientific and engineering practices. For example, as shown in the "Hands-On Activity, Solve a Problem, TEKS K.11.A, Scientific and Engineering Practices, Explain and Model Content to help children be successful during this activity, use the sentence frames in the Claims, Evidence and Reasoning (CER) section." The "Learning Objective" is "Children will be able to use what they know about natural resources to model and communicate a solution to a problem."
- The materials provide multiple opportunities to develop grade-level appropriate scientific and engineering practices as outlined in the TEKS. For example, in the lesson "Magnets and Material," students practice and demonstrate TEKS K.7A when they test and compare how

- various materials interact with magnets. In the next lesson, students continue to develop and practice SEPs as they use a magnet to push and pull a toy car.
- The materials provide multiple opportunities to practice grade-level appropriate scientific and
 engineering practices as outlined in the TEKS. In the "Observe Weather Patterns" lesson,
 students ask questions that can be answered using evidence from their weather chart
 investigation. The teacher leads a group discussion where students review and share their
 weather observations. Students practice sharing their claims and evidence to support the K.10B
 TEKS.
- The materials provide hands-on activities that allow students to practice and demonstrate scientific and engineering practices. For example, the "Light" lesson begins by explaining light to students. Then students record their findings as they observe the room with a little and a lot of light. Students share and discuss their findings with their classmates, then record their claims, evidence, and reasoning. Students experiment with light and record their findings as they shine a flashlight through wax paper. After the experiment, students work with a partner to identify any patterns they find. Students end the lesson by making a claim and presenting their evidence.
- The materials include multiple opportunities to develop SEPs, as seen in the "Scope and Sequence." For example, SEPs 1 and 4 are found throughout the year, as seen in TEKS K.6, K.7, K.9, K.10, and K.11. The assessment items include SEPs to give students multiple opportunities to prove mastery of the SEPs throughout the year. For example, one question from the assessment for K.11A asks students to analyze a photograph and identify one way the chef uses the earth's materials for his business.

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

- The materials use recurring themes, such as "Matter," "Forces and Motion," "Environment," "Structures," and "Behavior," to make connections within the overarching concepts, as shown in the Table of Contents of the Teacher's Guide. For example, one "Recurring Theme and Concept" includes students identifying the structures of plants, including roots, stems, leaves, flowers, and fruits (K.13.A) and describing the relationship between the structure and function of an organism (K.5.F). Throughout the lesson, students identify and compare various plants' leaves, roots, and flowers. Teacher guidance suggests having several plants that vary in shape, size, and color.
- The materials identify overarching concepts using recurring themes and show how they connect within the material. The "What Animals Need" lesson uses the recurring theme that asks students to describe how factors and conditions can cause organisms to change or stay the same. This lesson uses a pattern concept to make connections between the phenomenon that animals need certain things to live and grow just as plants do, some patterns being the same and some different. In addition, the "Patterns in the Sky" unit utilizes patterns as a recurring theme throughout the lessons when students observe phenomena to help make sense of the sun and the moon.
- The materials use the recurring theme of finding patterns within the activities of the lessons. The materials ask students questions such as "What do you notice?" and "What are the patterns?" The "Light" lesson provides an activity where students build a shade. Students work through the activity, compare their designs, and identify patterns they see.
- The materials identify overarching concepts using recurring themes and show how they connect with the materials. For example, the materials use recurring themes, including structure and

function, systems, models, and patterns, as seen in K.6, K.8, and K.10, where students identify energy and properties of matter.

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

- The materials integrate SEPs through classroom and outdoor investigations for at least 80% of instructional time to support instruction in the science content standards. For example, in the "Magnets and Material" lesson, students describe and predict how a magnet interacts with various materials and how they can be used to push or pull. The lesson also includes the section "Can You Explain It?," which provides a "Phenomenon Video," and the "Guiding Question" "Why do magnets push or pull some materials but not other materials?"
- The "Activate Prior Knowledge" section of each lesson provides guidance for teachers to elicit students' previous learning experiences. The materials support teachers in developing student content concepts and skills by giving them resources and cues throughout the lessons and units. The "Claims, Evidence, and Reasoning (CER)" section of the lesson notes makes connections between the SEPs and the development of conceptual understanding.
- The materials intertwine the content with the SEPs and RTCs to ensure students achieve
 proficiency in the concepts within the content and in the context of the SEPs and RTCs. The
 materials provide teachers with investigations and support for increasing complexity in studentled inquiry and investigation. The teacher can review previous learning and revise thinking on
 topics through the "What Do You Already Know" portion of the lesson.
- The materials allow students to conduct investigations throughout the year and support increasing complexity in student-led inquiry and investigation. The "What Do You Already Know" section of the lesson guides the teacher to review previous learning and revise thinking on topics.
- The materials support teachers in developing student content concepts and skills by giving them resources and cues at varying points in lessons and units throughout the grade level. For example, materials contain a Teacher's Guide and lesson notes that explain, describe, and make connections between the SEPs and the development of conceptual understanding, as seen in the K.6A Teacher's Guide to encourage students to ask questions about what interested them in the video.

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

- The materials include opportunities for students to ask questions, plan, and conduct investigations by providing regular opportunities for students to raise questions about phenomena. In the lesson "Air," students observe the presence and absence of wind. The teacher leads a discussion and gathers students' questions about the phenomenon, then uses their questions to facilitate the process of moving an investigation forward. The materials provide repeated opportunities for students to use grade-level appropriate scientific and engineering practices across various contexts throughout the course.
- Materials provide opportunities for students to engage with scientific and engineering practices
 multiple times and in various contexts with hands-on activities, "FUNomenal Readers,"
 "Connection to Community" activities, "Read Write and Share" activities, "I Wonder"

- discussions, "Phenomenon" videos, and anchor charts. These provide multiple opportunities to ask questions, plan and conduct investigations to answer questions and explain phenomena using appropriate tools and models.
- At the beginning of each lesson, teachers find a guiding question to use for encouraging student discussion. For example, the "Properties of Objects" lesson includes the guiding question "What properties can we observe about different kinds of fruit?" The materials provide teacher guidance on supporting the answers of students. The materials also provide opportunities for students to create end products for engineering tasks. Examples include physical devices, prototypes, models, drawings, or processes.
- Each lesson includes opportunities for hands-on activities that engage students in problem-solving and allow for discussions and questions related to science concepts. Each lesson provides a cross-curricular opportunity. The lesson on magnets begins with the teacher providing a guiding question: "Why do magnets push or pull some materials but not other materials?" The lesson provides a cross-curricular connection where the students read, write, and share. Materials instruct students to look around the room and tell, draw, or write about two things they observe that are in motion.

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials embed RTCs across units, as seen in the grade K lesson on "Natural Resources." In the lesson, students remember: "A system has parts that work together. The environment is a system of natural resources." This RTC is seen in the K.10C lesson about "Air," where the materials tell students that air is part of the environmental system.
- The materials use phenomena as a central anchor that drives student learning across grade-level content in each discipline (earth and space, life science, and physical science). Students examine phenomena using science and engineering practices (SEPs) through the lens of recurring themes. Students develop content knowledge as they work to construct explanations of the phenomena and/or solve engineering problems. Hands-on activities and group discussions throughout the unit provide opportunities for students to develop, evaluate, and revise their thinking as they figure out phenomena and solve problems.
- The lessons are structured around phenomena and direct experiences that lead students through the productive struggle necessary for sense-making. The materials use science theme organizers that scaffold student use of the recurring themes and concepts of the TEKS to support sense-making about phenomena within and across lessons. For example, the lesson on

magnets has students ask questions based on observations or information from the text, phenomena, models, or investigations. The materials use phenomena to create higher thinking with students as they solve problems and answer questions related to the lesson.

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

- The materials allow different entry points to the learning phenomena and/or solving problems. Students experience the phenomena through various means, such as teacher modeling, handson experiences, videos, recollecting data, and visuals.
- The materials provide opportunities to leverage students' prior knowledge and experiences related to phenomena and engineering problems, ensuring that connections are made to previous science TEKS while allowing students to communicate their experiences outside of school. In the "Rock" lesson, students activate prior knowledge by discussing the properties of different toys as they recall learning about the properties of matter, such as color, shape, size, and texture, in a previous lesson. As a school-to-home connection, students go on a rock hunt with their guardians to find a variety of rocks based on their property.
- The "All About Light" lesson allows students to apply their knowledge outside the classroom by
 utilizing a community leader to discuss lights within the community and how they can be used
 effectively. Additionally, students apply their knowledge at home by drawing or writing, where
 they find light sources within their homes.

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

- In grades K-2, the Day 1 "Engage" section, "What Do You Already Know?" outlines overarching learning goals for each phenomenon or engineering problem addressed. The section provides a causal explanation of the phenomena or engineering problem by activating prior knowledge and having students discuss the lesson.
- The materials outline the scientific concepts and goals behind each phenomenon and
 engineering problem. For example, the "Weather" unit introduces the phenomenon that we can
 observe the weather to look for patterns. Throughout the lesson, students use a pattern data
 log to record and illustrate weather observations. Students use the data they collect to explain
 observable patterns and characteristics of the four seasons and the weather conditions in each.
- The materials provide teacher guidance based on the scientific concepts and goals related to the phenomena and engineering problems. For example, teacher guidance for the lesson about environments provides the teacher with the phenomena that just as animals need air, water, and food to live, all plants need certain things to live and grow too. Students conduct investigations pertaining to the phenomena to collect evidence to support the goal. Teacher guidance for a lesson on describing and predicting how a magnet interacts with various materials and how magnets can be used to push or pull informs teachers that students will test different objects with magnets and use the "Cause and Effect Science Themes Organizer" to help them articulate what happens when the objects interact with the magnet and why.

Indicator 3.1

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The materials connect new learning to previous and future learning across grade levels. The materials include the section "Recurring Themes and Concepts" in the Teacher's Guide, which addresses what lessons are covered in the unit and explains how it connects to previous and future learning goals. For example, in the kindergarten lesson "Plants and Animals TEKS K.13," students learn to identify the structures of plants and animals. The grade 1 lesson "Structures and Behaviors of Living Things TEKS 1.13" connects and extends the kindergarten lesson by having students identify the external structures of animals and compare those structures. In the grade 2 lesson "Structures and Behaviors of Living Things TEKS 2.13," students identify the parts of plants and compare how those structures help different plants meet their survival needs.
- The materials connect new learning to previous and future learning across grade levels. For example, in the grade 2 unit on "TEKS 2.13 Structures and Behaviors of Living Things," materials include an overview that explains how students have engaged with life science concepts in grades K-1. In grades K and 1, students identify the structures of plants, including roots, stems, leaves, flowers, and fruits. Then, in grade 2, students' awareness is supported by knowledge of how the parts of plants help them survive.
- The materials connect new learning to previous and future learning across grade levels. For example, in kindergarten, students learn about force through magnets and how they interact

with various materials to push or pull. In grade 1, materials cite how students connect to and extend kindergarten learning as they plan and conduct descriptive investigations and predict how pushes or pulls can start, stop, or change the speed or direction of an object. In grade 2, students progress to explain how objects push on each other and may change shape when they touch or collide.

- The materials present content that builds complexity within and across units. For example, in the kindergarten "Light" unit, students progress from using their senses to observe and compare and classify objects by their properties to comparing the same object's appearance when being exposed to differing amounts of light.
- The materials present content in a way that builds in complexity within and across units. For example, the materials are aligned and designed for students to build and connect their knowledge and skills across units. In "K.6A," students learn to identify and classify objects based on their properties. In "K.7A Magnets," students build upon these skills to identify additional properties of matter, such as the material it is made of and whether it will be pulled by a magnet. In "K.8A Light Energy," students again discuss the properties of matter they can see and connect how light plays a role in how they see these properties.

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

- The materials include a progression of concrete to representational before abstract reasoning when presenting concepts. For example, in a grade K lesson on "Rocks," students first activate prior knowledge, then use hands-on activities to explore rocks while building concrete experiences. They then apply these experiences and understandings to acting like a geologist, drawing and describing a rock they have seen. Finally, building on their conceptual knowledge, they answer a claim-evidence-reasoning question where they are asked to observe an image and answer, "How are rocks alike and different?"
- The kindergarten materials ensure students experience a phenomenon or problem before utilizing models as a tool for reasoning. In the "Plant Life Cycle" lesson, students are introduced to the phenomenon that plants grow and change. They then use models to depict relationships and form explanations by observing, identifying, and recording the changes in the life cycle of a bean plant: from seed to seedling to plant.
- The kindergarten materials sequence instruction in a way that activates or builds prior knowledge before explicit teaching occurs that allows for increasingly deeper conceptual understanding. The materials utilize a lesson flow in which students explore concepts before learning about them. For example, in the "Light and Material" lesson, students collect data and investigate how light travels through some objects and is blocked by others. Students use their prior experiences and data gathered in the exploration phase to formulate scientific ideas during this lesson phase. Materials then direct teachers to introduce the term *shadows* and pose meaningful questions about shadow puppets.
- The materials ensure students experience a phenomenon or problem before utilizing models as a tool for reasoning. Materials give students opportunities to use models to depict relationships and form explanations. For example, in the "Magnets TEKS K.7.A" lesson, students determine what material various objects are made of, then predict which objects will be pulled toward the magnet based on their knowledge of magnets. Then, students use the "Cause and Effect Science Themes Organizer" to help them articulate what happens when the objects interact with the magnet and why.

• 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, materials ensure students experience a phenomenon or problem before utilizing models as a tool for reasoning. In the "What Plants Need lesson TEKS K.12.A," students generate observations of plants, taking note of the stems and leaves and what they look like. Students discuss their answers about what the plant needs to stay healthy, draw their plants, and come up with a plan to answer the question "Do plants need water?" Together, the class follows their plan for five days; each day, they observe both plants, but they only water the plant with the "Water" label. After five days, students compare their plants and tell how the plant that was not watered changed.

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

- The materials provide teachers with a clear lesson map, structured as 5 to 6 days, 30 minutes
 per day, that leads students to learn via science instruction. Within this map are important
 course-specific concepts and recurring SEPs. Additionally, the materials include a "Planning for
 Differentiation" section with resources like "FUNomenal Readers" and "Emergent Bilinguals
 Support Strategy." The materials include student-driven conceptual learning strategies, concrete
 mathematical applications, and hands-on practice.
- The materials provide teachers with a clear and concise "road map" in the form of a pacing guide. The pacing guide incorporates course-specific concepts, RTCs, and SEPs. TEKS K.8A states that students must communicate the idea that objects can only be seen when a light source is present and compare the effects of different amounts of light on the appearance of objects. The materials combine the RTCs of cause and effect (K.5B) and forms of energy (K.5E) with SEPs of asking questions, identifying problems, planning and conducting investigations, and communicating explanations.
- Materials use the "5E (Engage, Explore, Explain, Elaborate, Evaluate)" instructional model for sequencing science instruction. In the "Engage" section, the materials provide an activity to activate prior knowledge, key vocabulary, a video, a guiding question, and an opportunity to elicit children's questions. In the "Explore" phase, students conduct two or three days of handson activities to explore and experiment and gather data and discuss observations. In the "Explain" phase, students make a claim and then support it with evidence. In the "Elaborate" phase, students connect the previous three phases to test their new knowledge and vocabulary of the lesson, answering the guiding question of the section: "Can You Explain It?" During the "Evaluate" phase, materials allow teachers to evaluate children's proficiency across the curriculum and provide resource tips.
- The materials clearly present grade-specific core concepts, recurring themes and concepts, and science and engineering practices. For example, in the "Patterns in the Sky Lesson," the class discusses "How do objects make patterns in the sky?" using the vocabulary *Sun, Moon*, and *phase*. Students then explore the Moon and Sun's position in the sky before the teacher reads the FUNomenal reader "The Sky We Share" to explain objects in the sky. The teacher then elaborates by leading a group discussion on how the Sun seems to move across the sky. The lesson ends with a quiz to evaluate learning.
- The materials use the 5E (Engage, Explore, Explain, Elaborate, Evaluate) instructional model for sequencing science instruction. For example, in the "Environment" lesson, students Engage in the lesson by first scaffolding prior knowledge of seasons and the basic need for soil for plants. The lesson then moves into two hands-on Explore/Explain activities to help students understand

that water and sunlight are basic needs of plants. The Elaborate phase incorporates Ynes Mexia, plant scientist and explorer, allowing students to make connections between their explorations and understanding of the impact she has had on our world. The lesson then concludes with the Evaluate phase, where students prove their mastery of the concept through a review and quiz.

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

- The materials include specific learning targets for each grade level. The materials provide a scope and sequence document that outlines when learning targets are introduced, developed, and mastered within the program. The materials are written so that the TEKS are found at the beginning of each unit; the learning goal and objective are stated throughout. The materials clearly define the boundaries of content that students must master for the grade level.
- The materials include specific learning targets for each grade level that are within the boundaries of the main concepts of the grade level. Unit objectives are provided for each unit, and student learning objectives are provided for each lesson. For example, the "Matter" unit learning target is TEKS K.6A. The "Compare Objects" lesson starts with the lesson objective "Children will be able to describe objects' properties in relative size and quantity."

Indicator 3.2

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

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

Meets | Score 6/6

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

The 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 materials include guiding documents that support teachers in understanding how new learning connects to previous and future learning across grade levels. The grade K-2 materials contain a scope and sequence that supports teachers in understanding how new learning in a "Matter" unit connects to previous learning about physical science, earth and space science, and life science. For example, in grades K-2, students identify "Objects and Patterns in the Sky," "Patterns on Earth," and "Objects in The Sky," as shown in the Table of Contents of each Teacher's Guide K-2.
- The materials include guiding documents that explain how content and concepts increase in depth and complexity across lessons and units within the grade level. In the "Rock" unit, the materials guide teachers to understand that students begin by learning what rock is, then progress to sorting types of rocks. The materials explain that lesson complexity will increase to students using tools to observe, measure, and compare samples of rocks.
- The materials include guiding documents that support teachers in understanding how new learning connects to previous and future learning across grade levels. The materials support teachers in understanding how new learning in the "K.8A All About Light" unit connects to previous learning, "K.6 Properties of Objects," under the "Activate Prior Knowledge" section in

- the Teacher's Guide. For example, in this lesson, the Activate Prior Knowledge states, "In prior lessons, children used their senses to observe, compare, and classify objects based on their properties." Students build upon this knowledge by applying light energy and how it affects how we "see" objects.
- The materials explain how content and concepts increase in depth and complexity across lessons and units within the grade level. For example, the "K.8A All About Light" lesson explains how light helps us see and how the amount of light can affect how we see objects. Then in "K.8B Light and Materials," the lesson builds on the concept of light energy and adds depth by adding how some objects block light energy, creating shadows. In the Teacher's Guide, "K.8A," under "Sense-Making," the materials guide teachers to understand that students will make the connection that light is energy that allows them to see. In "K.8B," the materials guide teachers to make connections in the horizontal alignment, stating to have children "explain how light makes it possible to see objects and that objects can be seen more clearly in bright light than in dim light" and tell children that "in this lesson, they will explore what happens when light encounters different materials." Then, under Sense-Making, it further explains the horizontal alignment: "children will understand some materials allow different amounts of light to pass through and they will apply this knowledge later when they design a shade."

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

- The materials include background information for teachers that provides explanations and examples of science concepts. For example, in a grades K-2 "Matter" unit, students conduct descriptive investigations to explain how physical properties can be changed. The materials provide teachers with the "Science Themes Organizer" for grades K-2 on the Properties of Matter"; content support also provides context for the investigation and identifies key concepts using academic language. The goal of this organizer is to have children observe and identify the properties of matter. This Recurring Theme and Concept (RTC) is important because it scaffolds children's understanding of the conservation of matter and energy.
- The materials identify common grade-level misconceptions students may have about science concepts. For example, the teacher materials for the "Weather TEKS K.10.C" unit include an "Extra Support" section under "Differentiation," which suggests that children may think that the classroom doesn't have air because the pinwheel, ribbon, or windsock don't move. The materials suggest that teachers demonstrate how these items move when you walk or spin around.
- The materials include background information for teachers that provides explanations and examples of science concepts. For example, in the "Compare Light" lesson, "People in Science," the "Teacher Background" section shows images of wiring within a light bulb and an old light switch for the teacher to further understand and explain Thomas Edison's work.
- The materials identify common grade-level misconceptions students may have about science concepts. The "Solve a Problem" lesson identifies the misconception that students may assume water is a natural resource used to create buildings because moats are used for castles.
- The materials provide a section titled "Lesson Wrap-Up" that provides the teacher with strategies to help students struggling with the guiding question and lesson. The materials provide a differentiation option for teachers to further explain the concepts to students who are struggling or are below grade level. For example, during the "Environments" lesson, Day 3 provides differentiated instruction for teachers. It offers guidance for the teacher to challenge

- students to come up with a plan to show that plants need soil with nutrients in order to live and grow. The teacher asks students how they can test this and allows students to provide ideas.
- The materials include background information for teachers that provides explanations and examples of science concepts. Materials provide background knowledge for the teacher to help students gain an understanding of the concept(s) being taught. For example, in a grade K lesson ("K.9A"), "Teacher Background Knowledge" states, "Because of the Earth's rotation on its axis, the sun appears to move across the sky each day."
- The materials provide possible student misconceptions about grade-level concepts. For example, in lesson "K.9A" under "Differentiation: Extra Support," the materials state: "Children may not think light passes through the wax paper because images seen through it are unclear or clouded. Ask them to repeat the test and remind them that if they can see anything through the paper, it means that some light is passing through." (NOTE: not every lesson includes misconceptions).

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

- The materials provide a purpose or rationale for the instructional design of the program. Materials provide an explanation for why materials are designed the way they are. Materials highlight key features of the instructional design. For example, materials provide a rationale for using the "5E" model for learning, as explained in the Teacher's Guide. Teachers wanted lessons to have a clear structure, and thus the materials follow the 5E structure for each lesson ("Engage, Explore/Explain, Elaborate, Evaluate"). The program is built for students: lessons are structured around phenomena and direct experiences that lead students through the productive struggle necessary for sense-making. A "Claim-Evidence-Reasoning (CER)" approach allows students to take ownership of each learning experience and build those experiences into scientific explanations that become progressively more refined.
- The materials provide a Teacher's Guide that describes the program's instructional approaches and references the researched-based strategies present in each unit. Specific supports for each unit can be found in the "Unit Overview" for each unit.
- The materials provide a "How To Use This Program" portion in the Teacher's Guide. This section details the components of the program and explains how goals are met through the program. The materials provide an explanation of the background, TEKS, structure, extensions, assessments, and extra resources.
- The "How To Use This Program" provides an explanation of the use of the 5E structure and the
 TEKS-based organization. The materials detail the planning tools available for teachers, such as
 English Language Proficiency options, hands-on activities, digital student interactive lessons, and
 formal assessments. The materials provide an explanation of additional supports such as
 language development worksheets and vocabulary anchor charts, writing graphic organizers,
 science theme organizers, and materials kits.
- The materials include a "K-5 Orientation Video," which explains the design and how to utilize the program materials. A "Program Overview" outlines the intent and rationale for the materials. For example, the materials state what is included, how it is designed for Texas, the planning tools designed for the 21st century, how they are built with students in mind (student-centered with hands-on activities), and how they are built for the teacher (provide guidance and background information, "Lesson Overview," "Scope and Sequence," and "Pacing Guide").

Indicator 4.1

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

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

Meets | Score 4/4

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

The 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 and engineering design processes, make sense of concepts, and productively struggle.

Evidence includes but is not limited to:

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

- The materials consistently provide learning activities that support students' meaningful sensemaking through FUNomenal readers. These provide opportunities for students to engage with fiction and nonfiction texts to explore sense-making with science concepts. In the "Magnets Push and Pull" lesson, students read the "FUNomenal Reader: Let's Explore Magnets in Action" to explore how magnets can both push and pull objects.
- The lesson on "Light" gives students the guiding question, "How does light affect what you see in a dark room?" and two images (a dark room and a bright room). They then participate in an exploration activity where they experience a dark and a bright room to develop their sensemaking as scientists (asking questions, observing, documenting, and sharing their explanations). For the "Elaborate" piece in the same lesson, students read about Thomas Edison and write and share "how light can help people live."

- The materials consistently support students' meaningful sensemaking by including a section with definitions, explanations, and sensemaking opportunities to apply their knowledge with a hands-on activity. Day 3 of the "Light" lesson allows students to use what they know about how light passes through some materials and not others to design a model to solve the problem. Students build and test their models in the next session. Also, Day 3 of the "Earth's Materials and Systems" lesson states that students will observe how people can harm air and how to keep it clean. In later lessons, students make connections as they identify air as a resource all plants and animals need to live and grow.
- The materials define and identify specific sensemaking behaviors of students. In the "Moon Patterns" lesson, the sensemaking section indicates that observing the Moon's phases will reinforce the scientific concept of finding patterns in nature and references the study of light and shadows from the previous study of light.

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

- The materials provide "FUNomenal Readers" that are listed as point-of-use extension resources that provide opportunities for students to engage with fiction and nonfiction texts to explore sensemaking with science concepts. The materials provide three leveled versions of the readers to support differentiation for students and teacher guidance on incorporating and utilizing the readers with graphic organizers and vocabulary activities. For example, the Parent Plant Match Up lesson uses the FUNomenal Reader: The Life of a Flower to engage students in developing their understanding of the difference between a young plant and a parent plant. Additionally, the "Objects and Patterns in the Sky" uses the FUNomenal Reader "The Sky We Share" to reteach, reinforce, and supplement the exploration of objects in the sky through nonfiction text
- The materials support pre-reading with visual vocabulary slides in Day 1 of all TEKS lessons. For example, the "Read, Write, Share" section of the lesson "TEKS K.9.B" asks, "What can you learn about objects in the sky?" The section includes three cards; each card shows a word and picture of objects in the sky (Moon, star, and the Sun), and its definition on the back. On Day 1 of the lesson "TEKS K.8.A," students communicate that objects can only be seen when a light source is present and compare the effects of different amounts of light. Additionally, the "What Do You Already Know?" has students read four slides that include photos to answer the question, "How can you use science skills to learn about the world?" Each slide explains the use of senses, making comparisons, and sorting and measuring objects.
- Additionally, on Days 2, 3, and 4 of the lesson "TEKS K.8A," students complete an organizer, observe and compare an object, discuss and compare observations, and record them. Students read about Thomas Edison on slides that include photos to learn about his invention of the better light bulb and its uses. In the section "Read, Write, Share," students draw a picture to show how light can help people live, and then share their picture.

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

• The materials provide "Writing Graphic Organizers" and "Science Themes Organizers." The Writing Graphic Organizer helps students understand how to start the writing process, manage

information effectively, communicate scientific findings clearly, and express new understanding in an accessible format. The Science Themes Organizers scaffold the student use of Recurring Themes and Concepts of the TEKS to support sensemaking about phenomena within and across lessons. For example, the "Cause and Effect Science Themes" graphic organizer introduces students to the RTC of cause and effect. Students use the cause-and-effect graphic organizer in the "Air" lesson to make sense of the phenomena of moving air. On Day 3 of "Explore/Explain" in the "Force and Motion" lesson, students complete this organizer to help describe how to use a magnet to push or pull an object.

- The materials provide opportunities for students to communicate thinking about scientific concepts in written modes. In the "Build a Shade Part 2" lesson, under the "Read, Write, Share" section, students read about Dr. Patricia Bath and write one way to care for your eyes. Students then share their written concepts with the class. In the lesson "TEKS K.13.A," on Days 2, 3, and 4, students plant a bean seed, observe it for two weeks, measure it with snap cubes, make a bar graph using the measures, and compare, talk, and share the results. The students record a claim about how a bean plant changes during its life cycle.
- The materials provide opportunities for students to communicate thinking about scientific concepts in graphic modes. During the "Elaborate" portion of the lesson "TEKS K.7.A," students watch a video about Isaac Newton and how he studied why and how things move. Then, they look around the classroom, tell, draw, or write two things in motion, and share their work. In the lesson "K.8B Observe Light," on Day 2, during the "Explore" activity, students use the "Patterns Science Theme Organizer" to draw a pattern they observed in the activity. Students design a shade during the Day 3 "Explore" activity by creating a drawing of their design.

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.

- Materials support students to act as scientists who can learn from engaging in phenomena, make sense of concepts, and productively struggle. For example, in lesson "TEKS K.10.A," students work in small groups to sort rocks, place them in trays, and record a claim about how rocks can be sorted. They support their claims with evidence and reasoning. Students sort rocks by color, shape, and texture. In future lessons, students examine the size of rocks and explore some of their other properties to refine how they describe and classify them. In the "Children as Scientists" section of the lesson "Light K.8," the materials guide teachers to have students think and act like scientists by looking for patterns when observing, testing, and comparing materials. Teachers share and explain how they think and act like scientists during their investigations. The lesson on "Light" includes a section titled "Claim, Evidence, and Reasoning." Students make a claim about what they can see in a room without light. The students answer "What evidence do you have to support your claim?" and explain their reasoning to their partner.
- Materials prioritize students making evidence-based claims to construct explanations of how
 and why the phenomena or problem occurs. For example, in a lesson on the "Basic Needs of
 Animals," the materials guide students in sensemaking while observing animals to discover their
 needs. The students make a claim about what they learned and support it with evidence.
- The materials support students as practitioners in sensemaking and productive struggle. In the
 "Build a Shade" lesson, students build and test a model of a design solution to the light problem.
 They use engineering practices to test and improve this shade prototype. Afterward, students
 make claims about light and shadows and support their claims with evidence from their
 investigation.

- The materials create transfer opportunities for students to take what they have learned and use it flexibly in new situations. After investigating how objects can be seen more clearly with light sources, students compare light sources under various lighting conditions. Students use two shoe boxes, two small objects, and tape to cut out a viewing hole in each box and move the objects further and closer to the viewing hole. This activity reinforces the concept of light as energy which helps us see.
- The materials provide a program that allows student scientists to take ownership of their learning through activity-based learning. The materials provide "Hands-On Activities" followed by reflection and student discourse that drives each exploration as student scientists make and revise claims supported by evidence-based reasoning. The materials include embedded "Student as Scientists" features that provide asset-minded strategies for addressing past STEM learning trauma and fostering student academic identity.

Indicator 5.1

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims. For example, in "TEKS K.9.B," students describe objects in the daytime and nighttime sky. On Day 3, the section "Children as Scientists" states: "Tell children that scientists record their observations in many different ways. Some scientists are artists. They draw observations and make detailed illustrations to help others see what they see." The materials include sentence stems for support, such as "My claim about the objects in the sky is ..., My evidence is ... (I know because....)"
- The materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims. In the "Objects in the Sky" lesson, students use the "Patterns Science Theme Organizer" to support their claims on the season's patterns after completing the hands-on activity.
- The materials provide opportunities for students to develop how to use evidence to support their claims. For example, in lesson "K.7A Magnets," the student materials for Day 2 "Explore" state: "Ask another question you have about the investigation. Make a claim. Think about the objects pulled to the magnet. What were they made of? What caused the paper clip to be pulled to the magnet? Use what you have observed as evidence to your claim."

- The materials prompt students to use evidence when supporting their hypotheses and claims.
 - For example, in lesson "TEKS K.10.A" about sorting rocks by color, shape, and texture, the materials provide students with the following sentence stems in the section "Claims, Evidence, and Reasoning" after the investigations: "My claim is that rocks... My evidence is... I know because...." The materials direct teachers to prompt students to use evidence from the investigation to explain how to sort rocks.
 - o In the lesson "Earth's Materials and Systems: Weather," on Day 4 of "Explore/Explain" in the "Claims, Evidence, and Reasoning" section, students make a claim about severe weather and support it with evidence and reasoning. Students use the sentence stems "My claim is that preparing for severe weather is important because..., and my evidence is...." Students support their claim with evidence from their investigation and explain their reasoning to connect their claim to the evidence.
- The materials prompt students to use evidence when supporting their claim, as seen in lesson "K.12B, What Animals Need." The "Claims, Evidence, and Reasoning" section states: "Make a claim. Use evidence." Then, at the bottom of the section, the materials provide student guidance: "Make a claim. Consider what would happen if the animal you observed got the food and water it needed. Would the animal change? Would it stay the same? Use what you observed as evidence for your claim. Talk about your reasoning. Listen to your partner's reasons."

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

- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience in which students can contextualize new terms. For example, in the "TEKS K.13.A" lesson, students investigate plant parts and how they help plants to live and grow. Students view interactive photos and video clips about plant parts such as roots, flower, stems, leaves, and fruits. They identify the leaves, stem, roots, and flower on a plant. Then, they draw the plant, label its parts, and record a claim with evidence about how plant parts are different. Students look at interactive pictures and learn more about how each plant part's shape helps a plant live. The "Exit Ticket" has students examine an image and identify the plant parts, then think about the function of each plant part. Finally, students use what they have explored to answer the "Guiding Question": "How do the parts of a plant help it live and grow?"
- Materials present scientific vocabulary using multiple representations. For example, material in lesson "TEKS K.13.A" has interactive pictures of vocabulary that flip to reveal the words root, leaf, stem, flower, and fruit. On Day 2, the Exit Ticket has students move each word to the plant part using the vocabulary words root, leaf, stem, flower, and fruit.
- Materials include opportunities to develop and use vocabulary after having a concrete
 experience in which students can contextualize new terms. For example, in the "Rocks" lesson,
 students use the "Language Development Worksheet" during the hands-on activity when they
 come to a highlighted vocabulary word in the lesson. The worksheet provides a chart asking for
 the word, the meaning, an example or picture, and synonyms.
- "E-Materials" include embedded opportunities to develop and utilize scientific vocabulary in context. Each lesson includes opportunities to preview scientific vocabulary in context. Day 1 of "Properties of Objects" introduces the vocabulary words matter, property, and texture with images or examples of the word. Day 2 continues using the words and their definition in the "Hands-On Activity."

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

- The materials provide opportunities for students to engage in argumentation and discourse. For example, materials introduce students to constructing an argument for their interpretation of the phenomena they observe. Teachers remind children they are scientists when they ask questions and figure out ways to answer them through observations, conducting experiments, and gathering evidence. Teachers remind students they should use the evidence gathered through hands-on activities and explorations to answer and generate new questions.
- The materials integrate discourse within stages of the learning cycle. For example, in lesson "TEKS K.13.A," in the "I Wonder" section, the teacher leads a group discussion while children record what they notice and wonder about plant parts. The teacher "records the questions and puts a check mark by a question with more than one child interested in it." Materials guide: "Let children know they will answer the questions throughout the lesson. Revisit the questions frequently and have children reflect on what they explore in the lesson."
- The materials integrate argumentation and discourse within stages of the learning cycle. In the "Solve a Problem" lesson, students develop multiple ideas for fixing a broken bridge. Students record notes and observations and share their solutions. Students listen respectfully to other solution ideas and ask questions about the resources used.
- The materials provide opportunities for students to develop how to engage in the practice of discourse. The "Light and Materials" lesson prompts the teacher to lead students in a discussion about the shadows in the park. The teacher asks the students what blocks the light to cast each shadow. The group discussion is part of the lesson's "Claims, Evidence, and Reasoning" section.
- The materials provide opportunities for students to develop in the practice of argumentation and discourse. For example, in the "All About Light" lesson, the "Lead a Group Discussion" section states to "help children formulate and support their claims." It further guides: "Use sentence frames in the Claims, Evidence, and Reasoning section. Be sure to model a simple claim, support it with evidence, and explain how your evidence supports your claim." The sentence frames are "My claim about what I could see in a room with no light is... My evidence is... (I know because....)" Materials provide sentence stems for students who struggle to develop their arguments using evidence.

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

- The materials provide instruction for constructing and presenting a verbal or written argument that justifies an explanation of solutions to problems using evidence acquired from learning experiences. For example, in lesson "TEKS K.12.A," students conduct a five-day experiment watering one plant and not a second as they investigate the needs of plants. During the five days, students observe, draw, and make a plan. They complete a "Stability and Change Themes Organizer" to identify what changes occurred. Then, they record a claim answering the question "Why do the plants look different?" Materials direct students to use evidence, describe how the plants changed, and talk to a partner about their reasoning.
- The materials provide instruction for constructing and presenting a verbal and written argument
 using evidence acquired from learning experiences. Teachers use prompts to support talk moves
 that will spark discussion and elicit student thinking through discourse. In the "Force and

Motion: Magnets" lesson, students predict cause-and-effect relationships. The teacher explains cause and effect while students use the cause-and-effect science theme organizer to help them articulate what happens when the objects interact with the magnet and why.

- The materials provide opportunities for students to justify explanations of phenomena using written and verbal arguments as well as evidence acquired from learning experiences. Each lesson closes with a "Can You Explain It" section, in which students write a claim and support it with evidence and reasoning from their experiences to answer the "Guiding Question" about the phenomena or problem from the start of the lesson. In the lesson "Light: Light and Materials," Can You Explain It provides the Guiding Question "What causes the shapes on the wall?"
- The materials provide instruction for constructing and presenting a verbal and written argument using evidence acquired from learning experiences. For example, students investigate which objects' light can and cannot pass through. Students create a claim and present verbal and written evidence based on observations. The materials also guide students to listen to their partner's reasons.
- The materials provide opportunities for students to justify explanations of phenomena using written and verbal arguments as well as evidence acquired from learning experiences. For example, in lesson "K.11A, Using Resources," the materials direct students: "Make a claim about how natural resources are used. What evidence supports your claim? Talk with a partner about your reasoning."

Indicator 5.2

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide teacher responses to students' responses, including how to build on students' thinking. For example, in lesson "TEKS K.6.A," students identify and record the properties of objects and generate ways to classify objects. On Day 2, "Explore/Explain," Step 5, students are told: "Classify the objects by their properties. Use words to organize what you found." To build on students' thinking, teacher guidance states: "Children may be unsure how to classify objects by their properties. Tell children that when they classify, they sort objects into like groups. Have children think about the properties of the different objects when they classify. If children need additional support, ask: How can you classify the objects by shape?"
- The materials support teachers in deepening student thinking through questioning. In "Claims, Evidence, and Reasoning" of the "Where is the Sun" lesson, the teacher materials provide a guide to elicit student thinking. Students make a claim about how the Sun moves and support the claim with evidence from their previous investigation. The student explains their reasoning to connect that claim to the evidence. The materials suggest that the teacher can help the students deepen their thinking by asking, "Is the sun always in the same place in the sky?"

- The materials provide teachers with possible student responses or exemplars to questions. For example, in lesson "K.7A Magnets," on Day 2, Explore/Explain, under Claim, Evidence, and Reasoning, the materials provide a subsection titled "Support for Children's Answers." This section restates the students' assignment: "Make a claim about what caused the paper clip to be pulled to the magnet. Support your claim with evidence from your investigation. Explain your reasoning to connect your claim to your evidence." Then, the materials provide a sample answer: "My claim is that the paper clip was pulled to the magnet because paper clips are made of metal. My evidence is what I observed during the activity. The magnet pulled objects made of metal. The magnet did not move objects made of different materials."
- The materials guide the teacher in providing feedback to student responses and suggest how the teacher can build on students' thinking. For example, in the lesson on "Magnets (K.7A)," Day 3, Explore, "Exit Ticket/Formative Assessment," the "Provide Feedback" section guides the teacher: "Have them use words to describe how they were able to pull the car using the opposite sides of the magnets."

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

- The materials provide embedded support for the teacher in introducing and scaffolding students' development of scientific vocabulary. For example, "Lesson Planning" provides an overview of the lesson flow and always begins with a preview of the TEKS vocabulary. Additionally, the materials offer a "Language Development" section that guides the teacher to have students use the "Language Development Worksheet." For example, in lesson "K.7A Magnets," the materials provide the vocabulary words magnet, pull, and push with their definitions. Then, under the "Planning for Differentiation" section for "Emergent Bilinguals Support," under Day 1, the materials guide the teacher to clarify the meanings of the terms, model using sentence frames, and have children model to practice using language.
- The materials guide the teacher on how to support students' use of scientific vocabulary in context. For example, on Day 4, "Elaborate," "Vocabulary," "Apply" alerts teachers of opportunities for students to use scientific vocabulary in context, as shown in lesson "TEKS K.8.A": "As children answer the Can You Explain It? or close out the lesson, encourage them to use the vocabulary they learned in Days 1 to 3. For example, children might describe light as an energy that lets eyes see."
- The materials provide embedded support for the teacher in introducing and scaffolding students' development of scientific vocabulary. In the "What Animals Need" lesson, under the "Support for Vocabulary" section, the teacher introduces the word *shelter* and reminds students that people learn and remember some words better if they write down the word and show examples. The materials guide teachers to follow the "I say/You say" routine to review the vocabulary words two to three times. The teacher encourages students to use the language development worksheet and vocabulary anchor chart throughout the five-day lesson.
- The materials guide the teacher in supporting students' use of scientific vocabulary in context. In the "Observe Plants" lesson, under the "Can You Explain It" section, the materials guide teachers to have students use the vocabulary learned on Days 1-3 to answer the guiding question. Students should be able to use the words *root*, *leaf*, *stem*, and *flower* to identify parts of a flower when answering the question "How do the parts of a plant help it live and grow?"

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

- Materials include teacher guidance for setting up and reinforcing a class culture in which students listen to and evaluate whether they agree with one another's ideas. For example, the materials include the lesson and the anchor chart "Be An Engineer!" for setting up and using the SEPs. The activity aims to "engage children in engineering concepts, practices, and vocabulary." Materials state that in multiple lessons, "children will engage with engineering through the Scientific and Engineering Practices and Recurring Themes and Concepts." The materials guide teachers: "Discuss why sharing is an important part of engineering design. Engineers often work in groups and design solutions for other people. They must share information during all process phases, including presenting a solution so others can use it."
- The materials provide teacher questions for supporting student discourse and using evidence in constructing written and verbal claims. For example, in the "Magnets" lesson, the teacher leads a group discussion about magnetic pull and asks, "What do you wonder about why some magnetic tiles pull toward the other tiles?" to support student discourse. In the "Read, Write, Share" section, the teacher continues the cause-and-effect discourse by asking students to look around the class to find two things that are in motion and then write or draw about them.
- The materials provide teacher supports to prepare for student discourse. In the "Plant Life Cycle" lesson, students view the "Phenomena" video about how different plants grow and change; then, the teacher leads a class discussion. The material supports teachers by guiding them to remind students that they are scientists when they ask questions and figure out ways to answer them through observations, experiments, and gathering evidence.
- The materials provide teacher questions for supporting evidence in constructing written and verbal claims. For example, the "Children as Scientists" section of lesson "K.6A Properties of Objects," on Day 1, "Engage," guides the teacher to remind students to think and act like scientists by listening to others' ideas and sharing their own through discourse: "Explain they will be scientists. They will be curious, ask questions, and work with classmates to answer questions."

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

- Materials provide exemplars of students' verbal responses for sharing their thinking. Materials state that teachers can use the exemplars as a guide to help them facilitate students showing their thinking in a verbal form. For example, in the "Support for Children's Answers" section of lesson "TEKS K.9.B," during "Claims, Evidence, and Reasoning," students record their claim. The sample answer is "My claim is that the objects in the daytime sky are brighter than the objects in the nighttime sky. My evidence is what I observed on the picture cards. The sun and the clouds are in the daytime pictures. The sky is bright in those pictures. The moon and the stars are in the nighttime pictures. The sky is not as bright."
- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. The "Claims, Evidence, and Reasoning" section of the "Observe Light" lesson provides the following example of what students might say when sharing their thinking: "The claim is that light passes through clear objects. It does not pass through objects that are not clear. My evidence is my test with the activity's objects and light.

- My reasoning is that light passed through the page protector and wax paper. It did not pass through the muffin cups or pie pan."
- The materials provide teacher support for facilitating the sharing of students' finding solutions. The "Build a Shade" lesson provides examples teachers can use to support students throughout the learning cycle. The "Sense-Making" section encourages teachers to lead a group discussion to help students be successful during the activity and to remind students that scientists and engineers plan and build models for solutions. Students test and improve their models and sometimes have to change a plan to make it better or make it work.
- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. For example, the lesson "Force and Motion" guides the teacher to lead a discussion "to help students formulate and support their claims." The materials suggest: "Students may feel confident knowing how to use a magnet to pull an object. Pushing an object with a magnet will be a new concept they will experience during the investigation. Use the sentence frames in the Claims, Evidence, and Reasoning section. Be sure to model a simple claim, support it with evidence, and explain how your evidence supports your claim."

Indicator 6.1

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

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

Meets | Score 2/2

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

The 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 integrating 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.

- The materials include diagnostic assessments to provide the teacher with information to measure students' mastery and growth using a variety of formats. For example, the materials include "Building on Prior Knowledge" at the beginning of every lesson. Teachers can activate students' prior knowledge during discussions with peers and the class in this section. For example, at the beginning of the "K.6A Physical Properties of Objects", the "Engage" opens with students identifying how they learn things using their senses. Additionally, materials include daily exit tickets at the end of each Hands-on Activity and content day in interactive student lessons and printable student editions. For example, at the end of Day 2 for "K.6A Properties of Objects", the students must match the object to its physical property, such as shape, color, and material.
- The materials include formative assessments in various formats to measure student learning and determine the next steps for instruction. For example, each TEKS lesson includes an Exit Ticket that teachers can use as a daily formative assessment. The Exit Ticket is available in different formats. An example in the lesson "TEKS K.11.A," Day 2, Exit Ticket, has students choose two pictures that show how people use natural resources. Day 3, Exit Ticket states: "Rock is often used for buildings and bridges because it is strong. Choose the places rock is used

- to keep the castle strong: A the bridge, B the water, C the walls. Day 4, Exit Ticket, has students match pictures that show rocks and soil in a system.
- The materials include summative assessments in a variety of formats. The lessons provide assessment planning, which includes summative assessment planning. Each lesson offers a "Summative Assessment": TEKS Test. The materials provide "Wrap Up Resources," including the TEKS Tests, for example, the test found in the "Light: Light and Materials" lesson. The lesson offers a quiz and answer key for the teacher. The teacher can give the quiz as a paper copy for students or assign it digitally. The materials state that the digital version can be auto-graded. Additionally, the digital version can provide reporting data by student or class.

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

- The online resources provide the teacher with an "Assessment Guide" detailing the assessments
 and the TEKS on the quiz or test. The materials state: "The program's formative and summative
 assessment categories provide opportunities for students to demonstrate proficiency with all 13
 TEKS and to prepare for what they will learn in science classes in subsequent grades."
- The materials indicate the assessed student expectations. Materials provide the TEKS correlation for each assessment item and the answer keys for every assessment. An "Items Analysis Chart" shows the standards covered in each assessment. "Ed Online" contains the answer keys for all assessments. The materials include an "Assessment Table of Contents" in the "Assessment materials" that lists the TEKS for each guiz and test and an answer key for each assessment.
- The materials assess all student expectations by grade level. The "Teacher's Guide" includes detailed TEKS-based lesson plans that outline how to use the materials to teach specific concepts and skills, address particular students' expectations, and guide on assessing student learning. In the Teacher's Guide, the "TEKS K.6A, Properties and Objects" lesson plan provides a detailed outline of how the teacher will introduce new vocabulary, conduct a hands-on activity, lead group discussions, address student expectations, and provide guidance through an assessment.
- The materials indicate which student expectations are assessed. The materials provide a
 detailed "Scope and Sequence" with the expected TEKS for kindergarten science. Each lesson
 begins with "Lesson Planning," which outlines the TEKS taught. The lesson introduces the
 concepts as well as new vocabulary. Each lesson contains a student objective, hands-on
 activities, discussions, community connections, and assessments that assess the student
 expectations covered in the lesson.

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

- The materials include assessments integrating scientific concepts and science and engineering practices with recurrent themes appropriate to the student's assessment expectation. In the "Weather" lesson "K.1.F," "K.2.B," and "K.3.B," students observe the weather for five days, identifying patterns, using symbols to record the weather each day, and analyzing how the weather changes during the week. Students develop a plan for severe weather and present these plans as a meteorologist in a weather report for the class.
- The materials include assessments integrating scientific knowledge, science, and engineering practices with recurring themes. The content TEKS (TEKC 6-13) is often intertwined with Science and Engineering Practices (SEPs; TEKS 1–4) and Recurring Themes and Concepts (RTCs; TEKS 5)

- to ensure that students are achieving proficiency in the concepts not only within the content but also within the context of the SEPs and RTCs.
- The materials include assessments integrating scientific knowledge and SEPs with RTCs. For example, the quiz for lesson "K.11A," question number 6: "Rocks, soil, and water are natural resources that work together as a system. What does water do for the environmental system?" This question assesses "K.11A" and RTCs in "K.5D" to examine the parts of a whole to define or model a system.

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

- The materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. For example, in the lesson "TEKS K.7.A," students observe how a magnet interacts with a collection of objects. On Day 2, students look at the objects, predict which objects will be drawn toward the magnet, record it, test the objects with the magnet, and record it. Then, students compare the movement of objects and ask, "What materials are they made of? What is the cause and effect?" On Day 3, students apply their knowledge of magnets within an assessment by describing how to use a magnet to push or pull an object, "What is the cause and effect of it?"
- The materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. In the "Weather" TEKS quiz, students observe and analyze the day-to-day weather when given a chart with pictures of five days of weather. Students answer the question, "Which weather pattern happened most?"
- The materials include assessments that require students to apply what they have learned to a new problem. For example, in the lesson "K.8.B, Light and Materials," students explore how light travels through some objects and is blocked by others, creating shadows. On Days 3 and 4 in "Explore," students apply their knowledge about light and how some objects can block light to design and build a shade to solve a problem (bright light shining in your eyes).
- The materials include assessments that require students to apply what they have learned to a new phenomenon or problem. For example, in the "Natural Resources" lesson, students explore practical uses for natural resources such as rocks, soil, and water. Students apply what they know about these resources to solve a problem. They find a solution for fixing a broken bridge using natural resources. On Day 4, in "Explore/Explain," they explore how natural resources are part of a system.

Indicator 6.2

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

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

Meets | Score 2/2

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

The 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. Materials tools yield relevant information for teachers when planning instruction, intervention, and extension. Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.

Evidence includes but is not limited to:

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

- The materials include sample student responses and checklists that provide teacher guidance for evaluating student responses. For example, in "TEKS K.9.A," Day 2 "Explore/Explain" section, the materials include a formative assessment in the "Exit Ticket" section that includes the question, "Where do you see the sun during the day?" The materials provide the following sample student answer: "The sun is low in the sky in the morning and afternoon. It is high overhead at noon."
- The Teacher's Guide includes examples of acceptable responses for evaluating student responses. It suggests teacher actions to address student learning gaps in lessons and units as follow-up suggestions after formative assessments. The "Provide Feedback" section suggests that students who made the wrong choice(s) think about what plants look like when they get the needed water. In the "Animal Walk" lesson, under the "Support for Children's Answers" section, the teacher asks, "Why is it important to listen to other students' observations?" The guide gives this sample student response: "When I listen to others, I can learn new things and get new ideas." The Exit Ticket also provides an acceptable student response and differentiated extra support if needed.
- The materials provide resources to guide teachers in evaluating student responses, such as rubrics or checklists. The materials include several Performance Tasks with rubrics, such as

"Engineer It: Build a Model Shelter." The materials state: "These indicate what to look for and how to address any issues in completing the activity. They function as point-of-use rubrics for the immediate remediation of any perceived anomalies in performance."

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

- The K-2 materials provide guidance documents and resources to support the teacher's interpretation of the data. For example, the "Teacher's Corner" tab on the website includes a video of a pre-recorded session explaining how to interpret the data to "consider which assessments to select depending upon the instructional purpose. Learn how to edit the online assessments to align with your instruction and assign them to students directly on HMH Ed®. You'll also review data, reporting, and options for differentiated instruction. Recorded session coming soon."
- The materials include assessment tools that yield data teachers can easily analyze and interpret. Scores are color-coded to show levels of mastery by skill (red is Below-level, orange is On-level, and green is Above level). Additionally, the "Reports" tab provides Assessment Proficiency for the specific assessment for the class, an item analysis, identifies the two lowest performing standards, the scores based on the TEKS, and the option for the "Reports" page to recommend groups based on their performance.
- The materials support teachers' analysis of assessment data. Teachers can customize the assessment reports by type of report and date ranges. The customizable reports cover whole classes or individual students, general averages, and individual TEKS. The reports can provide a range of opportunities for teachers to analyze assessment data.

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

- The information gathered from the "Reports Tab" in Ed Online can help teachers make decisions on instruction. With the reports, teachers can group students based on assessment performance and determine which TEKS or standards may need whole class versus small group reteaching (reports identify the bottom two standards). The reports can serve as a growth report to track individual student performances.
- Materials provide guidance for formative assessments during the lessons, such as exit tickets and student question responses.
- The materials include data-management tools that allow teachers to color-code student data (red is Below-Level, orange is On-Level, and green is Above-Level) to differentiate science instruction and easily group students according to assessment results, providing a report that suggests grouping students in clusters based on their skill mastery of TEKS.
- The information gathered from the assessment tools helps teachers when planning core instruction. The lesson "Light: Light and Materials" provides intervention under "Can You Explain It?" The materials have students answer: "What causes the shapes on the wall?" If students struggle, the materials have them revisit the video and pose additional questions. The lesson supports student answers and has the students close the lesson by revisiting the vocabulary learned on days 1-4.

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

- The materials include a variety of teacher guidance for responding to student data. For example, materials provide possible misconceptions and how to respond to them, how to utilize the reader (FUNomenal Reader) as a mini-lesson to reteach, reinforce, and supplement the lesson or to utilize the reader for independent reading or small group/whole group lesson, leading group discussions about activating prior knowledge, "Phenomenon Teacher Background," "Support for Children's Answers," how to model and explain multiple activities including "Claim, Evidence, and Reasoning," and providing feedback for exit tickets (found in every unit and lesson for K-2 grade levels). The guidance provided briefly suggests activities or ways the teacher may respond to the content, misconceptions, and students needing help to make sense of the concept taught.
- The materials provide various student resources for teachers to respond to performance data.
 The materials provide direct instruction of science concepts, followed by reviews that include skills practice activities for students. The "Parent Plant Match Up" lesson under the "Ed Online Pocket Lab" for students includes an interactive student lesson, printable student editions, downloadable worksheets for the hands-on activities, picture cards, and science theme organizers for review and skill practice.
- The materials include a variety of resources teachers can use for direct instruction (whole class or small groups), additional practice and reviews, and enrichment activities, such as "FUNomenal Readers," "ELPS Mini-Lessons," a variety of graphic organizers, "Vocabulary Anchor Chart," "Language Development Worksheet," "ScienceSaurus," "Supplemental Lessons," "Connection to Community," "Pocket Labs," "You Solve It!" Interactive Activity, "Differentiation of Extra Support and Challenge," and "Possible Extensions" found in every unit/lesson.

Indicator 6.3

Assessments are clear and easy to understand.

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

Meets | Score 2/2

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

The assessments contain scientifically accurate items, 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 with learning goals.

Evidence includes but is not limited to:

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

- The assessments include items for the grade level that are scientifically accurate. For example, in "K.6A, Properties of Matter", the formative assessment (or exit tickets and discussion questions) uses the grade-appropriate vocabulary of *properties of objects, texture, color, shape*, and *material* in the recommended discussion starters and questions as well as using the terms *bigger* and *smaller* in reference to relative size.
- The assessments contain scientifically accurate items with exit tickets/formative assessments.
 The assessment "TEKS K.13.B" over animal structures is scientifically accurate, avoids bias, and error-free. The multiple-choice questions ask students to identify animal structures. The assessment also provides a chart with animal structures, and students must determine how the elephant uses each structure by writing the letter of one correct answer in each box.
- The assessments contain items for the grade level that are scientifically accurate with exit tickets/formative assessments. The assessment "TEKS K.12.B" over what animals need is scientifically accurate, avoids bias, and is error-free. Students observe and identify the dependence of animals on air, water, food, space, and shelter. The multiple-choice questions ask students to identify the needs of the animals in the pictures. The assessment also asks students to identify the resources the animal depends on to survive.

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

• The assessment tools use clear pictures. For example, in "TEKS K.8.A," Daily Formative Assessment, Day 2, the Exit Ticket assessment items include photos of a night light, a teddy bear, and a wood block.

- The assessment tools use clear pictures and graphics. The quiz for the lesson "TEKS K.10.B
 Weather" asks students to select photos that show summer. The graphics images of kids playing
 with a snowman, kids playing on a beach, and a child playing in the rain are clear and easily
 comparable.
- The pictures and graphics utilized in the assessments are developmentally appropriate. For example, Grade K assessment items contain simple, familiar pictures such as cups, balls, paper, and other school materials.
- The assessments contain clear pictures and graphics that are developmentally appropriate. In
 the assessment of weather, the question asks about identifying seasons. The images are
 developmentally appropriate by having an image of large snowflakes for snow, a lightning bolt
 coming out of a cloud for a thunderstorm, and a wind cloud with a tree bending over for a windy
 day.

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

- The K-2 materials provide clear guidance for teachers to consistently and accurately administer assessment tools. The assessments are supported by an "Online guide" on the materials website, "Teacher's Corner" tab, "Program Support," which gives an overview of the assessment, outlines the time to administer each task, provides step-by-step guidance for administering each measure, as established in the guide: "By balancing the formative and summative assessment options in HMH Into Science™you can create a complete picture of every student that helps you predict, monitor, and accelerate their growth and ensure they have the knowledge and skills necessary to achieve mastery of the Next Generation Science Standards (NGSS) and Performance Expectations. In this topic, you will explore the different types of assessments available in the "Into Science" product.
- The materials include an assessment guide that supports the teacher in understanding the types
 of informal assessment tools included in the curriculum, such as "Exit Tickets" and "TEKS
 Quizzes." The materials describe the different tests and offer guidance on their formats and
 forms, such as editable, printable formats, or online administration with digital auto-grading in
 Online Ed.
- The materials provide clear guidance for teachers to consistently and accurately administer assessment tools. The materials provide a detailed assessment guide within the "Assessment" tab. The "Assessment Guide" supports the teacher in several ways and is easily accessible. The materials provide teacher guidance in understanding the types of assessments that are included. The materials list the assessments as exit tickets, TEKS quizzes, and TEKS tests that align with the lessons. The teacher is provided with a general overview and assistance addressing prior knowledge, common misconceptions, and how to help struggling learners.
- The materials include detailed information that supports the teacher's understanding of the assessment tools. The materials include a section titled "Assessment Front Matter" found in the "Assessment Guide" that explains the different assessments and how they are designed based on their Depth of Knowledge, Rigor, and a deeper look into the different types of assessment such as Formative (Exit Tickets and TEKS Quizzes) and Summative (TEKS Tests).

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

• The K-2 materials offer accommodations for assessment tools so that students of all abilities can demonstrate mastery of learning goals. For example, materials provide a text-to-speech feature

on the web-based assessment platform, allowing students using the "Interactive Assessment" to click play on the icon at the bottom left corner of the screen and adjust the volume of it at the speaker icon beside it. Using the online speech-to-text feature, students can also record their responses to formative assessments within their interactive materials.

- The materials offer accommodations for assessment tools so that students of all abilities can demonstrate mastery of learning goals. Within the digital interactive assessment settings, the background and foreground colors can be set to five to accommodate those with visual impairments and attention difficulties. The font size options range from small to huge to assist with visual impairment accommodations, and students can use a text-to-speech software feature to read the assessment questions for hearing impairment, comprehension, and fluency accommodations.
- The materials provide editable assessments that allow for accommodations and enable students
 to demonstrate mastery of knowledge and skills aligned with learning goals. The materials
 provide assessments in an editable format. For example, the teacher can edit the number of
 questions and can edit the questions based on the materials. The materials provide the teacher
 with guidance regarding offering accommodations.

Indicator 7.1

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

1	Materials provide recommended targeted instruction and activities to scaffold learning for	М
	students who have yet to achieve grade-level mastery.	
2	Materials provide enrichment activities for all levels of learners.	М
3	Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.	М

Meets | Score 2/2

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

The materials provide recommended targeted instruction and activities to scaffold learning for students who have yet to achieve 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 yet to achieve grade level mastery.

- The materials include teacher guidance for scaffolding instruction and differentiating activities
 for students who still need to achieve mastery. The lessons include recommendations for
 downward scaffolds to support students in successful science learning and knowledge building.
 - The "Compare Light "lesson includes a Differentiation: "Extra Support "section that suggests that some children may have difficulty drawing and recording their work and should be allowed to verbally share their findings from the shoebox light investigation.
 - The Activity 1 on Day 2 of the "Properties of Objects" lesson states, "Children may be unsure how to classify objects by their properties. Tell children to think about the properties of the different objects when they classify them. If children need additional support, ask, "How can you classify objects by color? How can you classify objects by shape?"
 - The teacher guidance for the "Properties of Objects" lesson includes "Differentiation/Reteaching Support" under "Emergent Bilingual Support" through additional materials. For example, the guidance suggests using pages 2-4 and 92-94 of a "ScienceSaurus" to show students grade-level appropriate vivid images and detailed explanations.
 - In the lesson "K.10B, Weather", Day 3, Steps 3 and 4, the materials suggest the teacher ask students to consider how the seasons differ. The materials include a "Support for Children's Answers" section to help teachers support students with difficulty answering questions. The section contains questions teachers can use to scaffold, like, "What is different about the pictures of summer and winter?"

- The materials provide additional resources for targeted instruction and differentiation to support students who still need to achieve mastery. The "Patterns in the Sky" lesson includes a scientific text called "The Sky We Share" at three different reading Lexile levels for independent or guided small-group instruction. The materials also include a mini-lesson to reteach, reinforce, and supplement the exploration of objects in the sky through nonfiction text.
- The materials provide each lesson's "Differentiation/Reteaching Support" section. This section provides additional support for reteaching the concept, online resources on "Ed Online," and links to supporting materials for differentiation and reteaching. For example, Day 2 of the lesson "Objects and Patterns in the Sky" includes differentiation and reteaching support. The suggested support consists of the ScienceSaurus item "Earth Science: Space" on pages 73-75 and two supplemental lessons titled "What is in the Day Sky?" and "What is in the Night Sky?"

Materials provide enrichment activities for all levels of learners.

- The materials provide enrichment activities that encourage the exploration and application of grade-level science knowledge and skills, including applying new learning in different ways. For example, the "Magnets" lesson provides a phenomenon video for extending learning for students at all levels. It includes the "Guiding Question": "Why do magnets push or pull some materials but not others?" For example, on day 5 of the "Light" lesson, students participated in a "Read, Write, Share" activity where they respond to a prompt to write one way to care for their eyes. After they finish writing, they share their ideas with the class. The materials offer sample answers, such as the student wearing sunglasses to shade their eyes. In the "Weather" lesson, the materials provide an extension called "You Solve It! Plan a Trip." In this activity, students observe and identify patterns in the weather. They then plan what items to pack for a trip (based on the weather and weather patterns).
- The materials provide enrichment activities that account for learner variability by including
 guidance to engage students in tasks that allow them to apply their science knowledge in
 writing. For example, in the "Read, Write, Share" section of the "Rocks" lesson, students take
 on the role of a geologist by drawing a picture of a rock they have seen and describing it to
 others.
- The "Lesson At a Glance" in the Teacher Guide provides extension options. The extension options suggest that the teacher can use none, some, or all of the possibilities. The "Plant Life Cycles" lesson offers one day of ELPS extensions and five days of extension under "Elaborate." Mini-lessons are provided for the ELPS portion, while the other days offer support with the lesson "Grow a Garden."

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

- The materials guide just-in-time learning acceleration for all students. The lessons include scaffolds, supports, and resources for learners struggling with content or tasks. For example, in "K.8A, Light", the "Teacher Guide" guides the teacher to support student language acquisition, as seen under the "Language Support" section in the "Lesson at a Glance." The section lists multiple resources to enhance and accelerate student learning, such as an "ELPS mini-lesson," "Language X-Ray," "Language Development Worksheet," "Vocabulary Anchor Chart," and a "Writing Graphic Organizer."
- The lessons include recommendations for just-in-time scaffolds to develop productive perseverance in learning. The lessons have questions for the teacher to support students when they struggle to engage in a task. For example, in the "Support for Children" section of the

- "Observe Weather Patterns" lesson, the materials guide the teacher to ask, "How did sharing with a partner help?" and include a possible student answer of "My partner noticed something I did not. It helped me understand the changes in the season."
- The lessons provide support and resources for students ready to accelerate their learning. The
 lessons include resources for teachers to create a content plan to deliver at the moment of
 need. In the "Plan for Severe Weather" lesson under the "Differentiation Challenge" section, the
 materials suggest that the teacher extend the lesson by asking students to determine if the
 school has a plan for severe weather.
- The "Natural Resources" lesson includes a "Differentiation Challenge." The materials suggest that students repeat the "Read, Write, Share" steps, which had them touring the school and observing how rocks, soil, and water are used in their neighborhood or community. Students try to find different examples of how rocks, soil, and water are used other than the ways at school.

Indicator 7.2

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

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

Meets | Score 2/2

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

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

- The materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content. For example, materials suggest small group or partner discussions as shown on "TEKS K.8.A," Day 2, "Hands-On Activity, Claims, Evidence, and Reasoning": "What evidence do you need to support your claim? Explain your reasoning to your partner. Listen to your partner's ideas. Is there evidence the same or different? Additionally, the materials include a section named "Be An Engineer!" for teachers that identifies ways teachers can model needed scientific practices, such as "Introducing concepts, procedures, and vocabulary early in the school year, preparing children to "Engineer It" Hands-On-Activity, a reteaching resource for children who need extra support after an "Engineer It" Hands-On-Activity.
- The lessons include authentic tasks in which students use tools to measure and collect data. In
 the Investigate "Air and Wind" lesson, students use a pinwheel, ribbon, and clipboard to
 investigate moving air as evidence. For example, the "You Solve It!" Simulations include
 exploration with concrete and hands-on materials at the course's rigor level. In the "You Solve
 It! Plan a Trip" activity, students observe a five-day weather forecast and count the sunny,

- cloudy, rainy and stormy days. Students then either plan activities or pack a suitcase for a trip based on a weather pattern.
- The materials provide active learning activities that keep students engaged. Activities include observing, wondering, speaking, listening, reading, and writing. Students observe the plants on Day 2: "Observe Plants and Water" (TEKS K.12.A). Students ask a question about what plants need and share their questions. Students then draw pictures of the plant in their notebooks.
- The materials utilize a variety of developmentally appropriate instructions to keep students engaged while building their mastery of the content. Each lesson begins with a "What Do You Already Know?" to activate prior knowledge and engage students in "I Notice/I Wonder" activities. Then, students apply their prior knowledge to explore the new concepts through hands-on activities and discussions. Then, students apply their learning during the "People in Science" and "Can You Explain It?" sections before finally being tested to see if the students have mastered the concept(s).

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

- The materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one). Materials guide teachers on when to use specific grouping structures based on the needs of students. For example, in the lesson "TEKS K.8.A", the section "Can You Explain it?" Students have to answer a question, "Children should have grown in their depth of knowledge about how materials affect light. If children struggle to answer the question, have them revisit the video. Pose a question such as: "What is created when a material blocks light?"
- The materials include suggestions for one-on-one and independent practice and activities students complete independently within the "Using Resources" lesson under "Language Development." Students complete the language development worksheet after a whole class vocabulary lesson. For example, the lessons note that if students struggle with the exit ticket, the teacher should address the student's misconceptions. The "Identifying Properties" lesson under "Exit Ticket" advises teachers to provide feedback to students by identifying misconceptions about objects' shapes. For example, the teacher explains that round refers to the shape of the entire object, not just a part of it, to students with misconceptions.
- The materials provide suggestions for grouping depending on the activity. For example, in the lesson "Objects and Patterns in the Sky" Day 2, the differentiation portion suggests having students work in small groups to draw pictures of things they see in the daytime and night sky. In addition, the digital "Student Interactive Lessons" can be completed independently, in small groups, or as part of whole-group instruction. Lessons from the presentations in all settings support hybrid and remote learning.
- The materials encourage flexible grouping throughout all lessons. For example, in the lesson "K.9B, "Objects in the Sky," in the section "Differentiation: Extra Support," the materials suggest students work in small groups to draw pictures. The "Read, Write, Share" section states: "Children will work in pairs to make a picture book of objects visible in the daytime and nighttime sky." This activity is followed by students sharing with the class. The "Dashboard" also links videos/Pathways to help teachers who need more support. Topic 3 is "Assess and Differentiate Instruction." This 60-minute video shows how teachers can edit and assign the materials to students online. This resource allows teachers to differentiate lessons for students and provide additional support in flexible groupings.

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

- Early in the year, materials guide teachers in establishing classroom routines, leading to
 effective small group and independent work. For example, the "Teacher's Guide" includes a
 section named "Be An Engineer!" for teachers that identifies ways teachers can model scientific
 practices, such as "Introducing concepts, procedures, and vocabulary early in the school year,
 preparing children for "Engineer It" Hands-On-Activity, a reteaching resource for children who
 need extra support after an "Engineer It" Hands-On-Activity.
- The lessons include explicit teaching, then opportunities for students to practice a routine for how to work independently in lab investigations, as shown in the section "Built for Students" at the beginning of the Teacher's Guide. Familiar and predictable classroom routines scaffold students and empower them to build on previous learning as they think deeply about each science concept.
- The lessons include opportunities for students to engage in collaborative learning structures, such as think-pair-share, while learning a new concept. For example, in a Grade K lesson, "K.7A, Magnets," the students' materials state: "Share what you draw in Step 3 with a partner."
- The materials provide multiple types of practices. The lessons include opportunities for students to examine recent scientific case studies and independently complete a reflection, argument, summary, or justification assignment. For example, in the "Magnets and Materials" lesson under the "Claims, Evidence, and Reasoning" section, students claim what caused a paper clip to be pulled to the magnet and support their independent claim with evidence and reasoning.
- The materials offer structures for providing verbal and written feedback to students, including student-to-teacher and peer-to-peer feedback, in line with reflecting on learning after a particular type of practice. For example, in the lesson "K.11A, Using Resources", the materials for Day 2 Explore under the "Exit Ticket/Formative Assessment" section states: "Provide feedback to children who chose the child yawning. Ask them to identify which natural resource is in each image. Have children revisit the examples of natural resources from the picture cards."

Materials represent diverse communities in the images and information about people and places.

- The names of individuals presented in the lessons equally include male and female names and represent individuals of diverse backgrounds, including races, ethnicities, and national origins. In the "Moon Patterns" lesson, students watch a video about Dr. Mae Jemison, the first African-American woman in space, and draw a picture to show her accomplishments. In the "Identify Animal Needs" lesson, students click through the images about Salim Ali, an Indian ornithologist, and his work studying birds.
- The characteristics vary in images, including race and ethnicity, skin tone, gender identity and expression, age, disability status, body size and shape, and hair texture. The Student Interactive lesson Day 3: "Engineer It: A Device That Uses Sound," Part 2, shows students an image of African-American drummers in a school uniform outside a stadium playing drums.
- The pictures showing students doing science include images representing children from across the world, many ethnicities, nationalities, genders, and children with disabilities.
- The information in teacher guidance documents, student materials, and scientific texts
 positively portrays a diverse group of scientists and engineers and sometimes includes specific
 terms and descriptions. For example, in a Grade K lesson, "K.9A Patterns in the Sky," Day 4,
 "People in Engineering," introduces Dr. Mae Jemison and describes her as the first AfricanAmerican Woman in space.

Indicator 7.3

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

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

Meets | Score 2/2

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

The 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.

- The materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. Materials include sideboard references that demonstrate ELPS connections as shown in the lesson "TEKS K.11.A," section Extensions: "1 DAY ELPS English Language Development Mini-Lesson,"
 - BEGINNING: Guide children to discuss the word they learned about and how they would complete the graphic organizer orally. Have children work together to complete the task.
 - o INTERMEDIATE: Have partners answer the question and orally complete the frame: I learned about I learned about properties. Then, they can complete the organizer.
 - ADVANCED: Have partners answer the question and explain the word meaning: I
 learned about is/are I learned about properties. Properties are parts of what
 something is like. Then, they can complete the organizer.
 - ADVANCED HIGH: Have children answer the question and explain the word's meaning: I learned about is/are I learned about properties. Properties are parts of what something is like."
- The "Teacher Guide" embeds scaffolds for emergent bilingual (EB) students into lessons, such as visuals and gestures, as shown in the lesson "TEKS K.13.C, Emergent Bilinguals Support," Day 1: "Have children express their knowledge in ways that are accessible to them, such as using visuals, gestures, and other nonverbal cues to reinforce or express understanding."

- The materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. The materials include teacher guidance for communication with emergent bilingual students, intending to create comprehensible input. The lessons provide routines and support for comprehensible input of scientific concepts and vocabulary when delivering instruction. In the "All About Light" lesson, the teacher reinforces vocabulary and language structure using signal words and sentence stems to support students' additional practice using oral, written, and nonverbal language. The material advises the teacher to give students extra practice time and confirm their understanding that they see objects when light is present.
- The "ELPS Mini Lessons" provide differentiated strategies for each level of language proficiency as defined by the ELPS. The ELPS mini-lesson titled "Look Up Into the Sky!" provides vocabulary support for students. The lesson breaks down the "Respond to Questions" portion with strategy/responding to questions and scaffolding/responding to questions. The materials provide a scripted lesson for the teacher to use while working with students. Strategy and scaffolding continue through the "Restate Ideas" and "Summarize" sections. The lesson ends with a writing opportunity that guides beginning/intermediate and advanced/advanced high levels.
- The materials guide linguistic accommodations for all levels of learners. For example, in the "Lesson at a Glance" for "K.6A, Properties of Objects" under the "Language Support" section, the materials guide teachers to use extension activities such as an ELPS mini-lesson. In the minilesson, the materials provide teacher guidance to differentiate the lesson, including scaffolding, "Sentence Stems for Beginner, Intermediate, High, and Advanced High Emergent Bilinguals." Additionally, the lesson guides teachers in teaching multiple reading strategies, such as "Ask and Answer Questions," "Clarifying Ideas," and "Restate Ideas." The materials ensure all levels of students can access and master the concepts in the lesson.

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

- The materials include tips for teachers about the importance of allowing students to express their understanding in their first language and practical suggestions for teachers who do not speak the student's first language. For example, the lesson "TEKS K.11.A" has children express their knowledge in ways that are accessible to them, such as writing a term in another language they know and looking it up in a bilingual dictionary to confirm the meaning.
- The materials encourage strategic use of students' first language to enhance English's linguistic, affective, cognitive, and academic development. In the "Objects in the Sky" lesson under "Emergent Bilingual Support," Day 1, the students express their knowledge in ways accessible by writing a term in their language and then looking it up in a bilingual dictionary to confirm the meaning.
- The materials encourage strategic use of students' first language as a means to linguistic,
 affective, cognitive, and academic development in English. The materials include resources for
 translation or support in first languages. In the "Space Probes" ELPS lesson, the teacher
 encourages students to use multilingual glossaries to preview academic word meanings and use
 sentences to help children understand content words in context and build on their knowledge.
- Each lesson's "Planning Page" in the Teacher's Guide includes guidance on implementing best practices, consistent routines, and support for emergent bilinguals. The materials suggest that, before any instruction, teachers allow the use of their first language as a scaffold to develop scientific discourse in English.

• The materials include a glossary with cognates or second-language definitions the teacher can assign to the student through their online access. Some multilingual glossary languages include Spanish, Chinese, Arabic, Haitian, Punjabi, etc. The materials include family letters explaining the instructional objectives and homework in languages other than English.

Indicator 7.4

Materials guide fostering connections between home and school.

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

Meets | Score 2/2

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

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

- The materials provide information to share with students and caregivers about the program design. For example, the materials include a "Beginning-of-Year Home Letter" that provides an overview of the TEKS lessons in an easy-to-read format with graphics. The document offers caregivers an overview of the program: "Children will explore topics such as matter, forces and motion, light, objects and patterns in the sky, Earth's materials and systems, natural resources, environments, and plants and animals." The letter provides an editable section for teacher notes and technology login information.
- The materials provide information to share with students and caregivers about the program design. The "Family Room" is a resource for families and caregivers. It is a collection of quick, easy-to-follow tips and explanations that help families and caregivers reinforce their child's learning. The materials state the resource contains "Getting Started," which includes general information on how to navigate Ed; "Program Support," which has resources and strategies that are used in class as well as suggestions for how you can support your child at home; plus "Shareables" for quick tips about the challenges that many parents experience, like getting their children to talk about their learning.
- The materials provide information to share with students and caregivers about the program design. For example, the materials include a "Beginning of the Year Home Letter." It is a one-page (double-sided) overview of reading and understanding the "Home Letter" for each Unit/Module utilizing easy-to-ready language. Additionally, this document provides a section titled "Notes from the Teacher" and "Login Information for the Student." The teacher can share information such as suggestions for at-home activities, links to online resources, and additional information the teacher feels will benefit the caregiver and family.

Materials provide information to be shared with caregivers to help reinforce student learning and development.

- The materials provide resources and strategies for caregivers to help reinforce student learning and development. For example, the letters to families about how they can prepare students for the TEKS lesson by providing an At-Home Activity and engage them by asking questions about it, as shown in the materials online, "Discover" tab, "Extra Resources," of the lesson "TEKS K.6, Matters and its Properties," the section "Home Letter": "Dear Parent or Guardian, Your child is now beginning to investigate "TEKS K.6, Matter and Its Properties." Read more to find out what your child is exploring," and section "At-Home Activity": "To prepare your child for TEKS K.6, try this short activity: gather a few objects inside your home. Have your child describe each object. Then, have them use what they know to sort the objects. Ask them to share why they sorted the objects that way. Engage your child by asking these questions: "What senses can you use to describe something? How can you use properties to sort objects?"
- The materials provide information to share with students and caregivers about the program design. The "Home Letter describes" the unit's focus, including the TEKS covered in the unit, the "Performance Expectations" for students, and additional activities that families can do at home to reinforce their child's learning. These can be sent home to kick off each unit and are in a translatable Word document.
- The materials provide at-home practice activities for caregivers to help reinforce student learning and development. For example, the Teacher's Guide has a section for each TEKS, "Connections to Community," sharing activities for caregivers to help reinforce their child's learning. For example, in the lesson "K.8A, All About Light", the materials suggest: "Have the child work with a parent or guardian to find light sources around the home. Draw or write about to tell what they found." Additionally, caregivers and students can access online resources such as the "FUNomenal Readers" and "Solve It!" activities.

Materials include information to guide teacher communications with caregivers.

- The teacher guidance materials include information on engaging caregivers as partners in learning and offer suggestions for establishing a relationship, inviting ongoing communication and partnership, as suggested on the product website, "Teacher's Corner" tab, "Program Support," "Into Science," "Grade K-12, Reaching Out With Home Letters": "You know how vital it is to keep parents and caregivers informed about what their child is learning in school since it helps them enforce it at home. Stay connected with your student's families virtually when you can't meet in person. Use the Home Letters in HMH Into Science™ to share important details about what they're learning and how students are learning it."
- The teacher guidance materials include information on engaging caregivers as partners in learning and invite ongoing communication and partnership. The teacher materials provide templates for sharing and explaining how to support student learning. A section to the left provides "Program Support" for teachers. This section has a page titled "Reaching Out With Home Letters." This article reinforces the importance of connecting with caregivers through the Home Letters. The article guides the teacher through the different sections and how to make the letter their own.
- The materials include teacher guidance for communicating with caregivers. To help families and
 caregivers become active partners in teaching, the teacher shares the "Family Room" video with
 caregivers in an email. The email reads: "Hello, Families! This year, we have an exciting new
 resource called the "Family Room" to help you understand what your child may be working on

in school. The "Family Room" has three sections: 1. "Getting Started" includes general tips on navigating Ed. 2. "Program Support" includes resources and strategies that I'll be introducing to your child during class and suggestions on how you can support your child at home. 3. "Shareables" for quick tips about the challenges many parents experience, like getting their children to talk about their learning. View this quick video to learn more, and remember: You're always welcome in the Family Room!

• The materials include teacher guidance for communicating with caregivers. The "Teacher's Corner" provides a less than 2-minute video for families and caregivers about the "Family Room" and how to use it. The video is informative on what to expect, how to work with the student, and how to navigate materials. This video guides the teacher: "Empower the adults in your students' lives to act as your unofficial co-teachers. Introduce them to the "Family Room," where they'll find a collection of quick, easy-to-follow tips and explanations that help families and caregivers reinforce their child's learning."

Indicator 8.1

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The TEKS-aligned "Scope and Sequence" outlines the order in which the lessons should be taught. The "Scope and Sequence" divides the lessons into sequenced content sections that include "Physical Science," "Earth and Space Science," and "Life Science."
- The materials include a "Pacing Guide," a side-by-side document showing the TEKS, a concise skill description, and the number of days and minutes suggested for each lesson. The document provides a year-at-a-glance plan for the following categories: "TEKS Streamlined Path," "TEKS Emergent Bilinguals Path," and "TEKS Extended Path." These plans allow for flexibility depending on the number of days science is taught within the district.
- Each lesson in the Teacher's Guide includes the "Lesson at a Glance" and "Lesson Planning" pages, which list the TEKS to be covered and the pacing within the lesson. For example, the pacing information in the at-a-glance section of the "Objects in the Sky" lesson includes TEKS K.9.B and 5 days (30 minutes a day) for the pacing.

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

• The materials include teacher guidance for providing students with opportunities to make connections, often intertwining the core concepts with the Science and Engineering Practices (SEPs) and Recurring Themes and Concepts (RTCs) over the course of the year.

- The materials guide teachers to support students in using "Science Theme Organizers" to scaffold the use of RTCs to support sensemaking about phenomena within and across lessons.
 Each lesson begins with a purpose: "Through the Scientific and Engineering Practices and Recurring Themes and Concepts, students will engage with engineering within multiple lessons."
- The materials include teacher guidance on prior knowledge using concepts from previous lessons. For example, the "What Do You Already Know" section in K.7A "Magnets" guides teachers to ask students to list the properties of matter learned in the previous concept. Additionally, in the "What Do You Already Know" section in K.9B, "Objects in the Sky," the guide explains to teachers how to activate prior knowledge by asking students to recall their previous investigation into light and shadows and connect to an image of the sun. Teachers then guide students to list items that give off light.

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

- Materials provide review and practice with all the grade-level science TEKS to intentionally
 practice and spiral over the course of the year to support mastery and retention. The content
 TEKS are often intertwined with Science and Engineering Practices (SEPs) and Recurring Themes
 and Concepts (RTCs).
- Each lesson includes a Day 1 lesson, with a section called "What Do You Already Know?" This section guides the teacher to activate students' prior knowledge. For example, the teacher guidance for the lesson "Magnets" tells the teacher to ask students to name the properties of matter they learned about in the previous lesson. In the "Objects in the Sky" lesson, the guide has teachers ask students to recall their previous investigation into light and shadows and connect to an image of the sun. Materials then guide them to list items that give off light.
- The teacher guide indicates familiar and predictable classroom routines to scaffold students and empower them to build on prior learning as they think about each science concept.

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include overview documents to support teachers in understanding how to use all materials and resources, as seen in the "Overview Video" in the "HMH Online Dashboard."
- The materials provide overview documents to support teachers in understanding how to navigate and utilize the online resources, as seen in the "Walkthrough Guide" in the "Teacher's Dashboard."
- The materials are organized in a way that facilitates ease of implementation and use. The Teacher Guide contains detailed recommendations for the use of all materials and components and strategies at the start of every lesson, labeled "Planning for Hands-on Activities." The recommendations are organized into days and time estimates. For example, teacher guidance for the "Rock" lesson includes detailed learning objectives, materials needed, and preparation tips per day.
- The Teacher Guide includes a list of features the teacher can find throughout the curriculum, an explanation of the pacing of lessons, and a list of the key components for each lesson. The materials include a "Key Learning Activity" section that can be used in planning. Teacher

- guidance is provided for supporting or enhancing student learning in the following sections; "Cross-Curricular Connections," "Connections to Community," "Assessments and Claims," "Evidence," and "Reasoning."
- The materials explain that they focus on one content TEKS, which is found in the "Lesson At a Glance" with included point-of-use details. The materials explain the teacher has flexibility due to a TEKS-based organization. The materials indicate that they allow "Student Scientists" to take ownership of their learning through activity-based learning. The materials explain that they are built with formative and ongoing assessments through student interaction and daily exit tickets. The materials offer digital "Student Interactive Lessons," "English Language Proficiency" options, hands-on science activities, student collaboration in activities and discourse, and formative assessment options.
- The materials offer teacher guidance for each lesson present. The lesson "Objects in the Sky"
 provides the TEKS used and the Recurring Themes and Concepts (RTCs), then breaks down the
 "Lesson Objective." The lesson guides the teacher by providing a guiding question, vocabulary,
 and language development.

Materials include standards correlations, including cross content standards, that explain the standards within.

- The materials provide a "TEKS Correlation" section with a list of grade-level TEKS and the narrative and activities. Each lesson provides an "Item Analysis Chart" that shows the specific standards covered in each assessment question to assist in monitoring student progress.
- Each lesson begins with a "Lesson At a Glance" portion that outlines the TEKS that will be covered in the lesson. The lesson further shows whether the TEKS used is a Scientific and Engineering Practice (SEP) or Recurring Theme and Concept (RTC).
- The "TEKS Correlation" details where each of the Processing Standards can be found within the materials. For example, K.1Ai asks questions based on observations or information from text, phenomena, models, or investigations and can be found in TEKS "Narrative Lesson K.12A," Day 2, Screen 3, Step 1, and "GK Skills" bank item 7.
- The materials provide cross-content standards for ELA, Math, and Social Studies, found in the Teacher's Guide under "Cross-Curricular Connections" in the "Lesson Guides." For example, in lesson K.10A on identifying and classifying rocks, the guidance recommends students read, write and share as if they are geologists. They are to illustrate, describe, and write about a rock they have found.

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

- Materials include an appendix with a comprehensive list of all equipment and supplies needed to support students and teachers during investigations. The materials list includes hand lenses for TEKS Lessons K.10.A, K.13.A, and K.13.C, goggles for Lesson K.10.A, trays for TEKS Lessons K.6.A, K.7.A, and K.10.A, heat-resistant gloves for TEKS Lessons K.13.A and K.13.C, straws for TEKS Lesson K.7.A, ribbons for TEKS Lessons K.10.A and K.10.C, magnets for TEKS Lesson K.7.A, blocks for TEKS Lesson K.6.A, tuning forks for TEKS Lesson K.7.A, and flashlights for TEKS Lesson K.8.B
- The "Hands-On Lab Materials List" is a separate component within the materials. The list is broken down by the item, how many are needed, the activity, and the TEKS. The material provides the teacher with a list of supplies needed that correlate with the lessons.

Materials list the materials needed for the lesson and the activity. The lesson "What Plants
Need" suggests the teacher will need two basil plants in pots, a water label, no water label, a
science notebook, and a pitcher with water. In addition to the list, the lesson provides
preparation tips.

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

- The Teacher's Guide includes a "Safety in Science Grades K-5" section that contains a list of four aspects to review before any activity in the classroom, laboratory, or field. The four aspects are "Identify the Risks, Evaluate the Risks, Select Controls to Address Risks, Select Controls to Address Risks, and Implement and Review Selected Controls." Materials also include checklists of grade-appropriate protective personal equipment (PPE) for lab investigations.
- Materials provide teacher guidance for safety practices and appropriate use of safety equipment
 during investigations, per Texas Education Agency Science Safety Standards. The student
 materials include safety in the science-inside each lesson that reminds students to always wear
 clothes for science, never work alone, only items needed should be out, read all steps before
 starting, report all spills quickly, stay on task, pay attention to the teacher, never taste materials,
 keep work areas neat, clean up when done, and wash your hands.
- The "Safety in Science" section includes the "Science and Engineering Safety 101" information lesson. The information states it "covers the classroom, laboratory, and field." The materials state that "concerns for safety must begin before any activity in the classroom, laboratory, field, or engineering site and before students enter these areas." The information provided is for the teacher to use to ensure safety in all aspects.
- The Teacher's Guide for each lesson includes a section titled "SAFETY" with guidance for facilitating the lesson with safety in mind. For example, a lesson on "Forces and Motion" states: "Caution children not to put any of the objects near their face or mouth. Have children identify other ways to stay safe during an investigation."
- The materials provide guidance for the students on safety practices during their investigations, as seen in the "Interactive Student Lessons." Each lesson provides a "Safety" section for the students. For example, in the online "Interactive Student Lessons" for K.7A "Magnets," the "Safety" section states: "Do not put objects near your face or mouth."

Indicator 8.3

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

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

Meets | Score 2/2

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

Evidence includes but is not limited to:

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

- The beginning of each lesson notes its number of days, which is followed by a lesson plan pacing summary. The lesson plan pacing summary details each part of the lesson by minute and day. For example, on page 193, the "Lesson Map" states: "Time: 1 day = 30 minutes, Engage Day 1, Explore and Explain Day 2, Explore and Explain Day 3, Explore and Explain Day 4, Elaborate Day 5, Evaluate Day 6."
- The resources within each lesson or unit include appropriate pacing suggestions. For example, in the Teacher's Guide, "Patterns and Skies," is divided into five days.
- The material includes guidance and recommendations on required time for lessons and activities, with options for a variety of scheduling considerations. In the Teacher's Guide, the lesson on "Weather," Day 1, indicates it will be a 15-20 minute lesson.
- The materials offer a "Guide to Recommended Pacings" The pacing guide provides a "TEKS Streamlined Path," a "TEKS Emergent Bilinguals Path," and a "TEKS Extended Path." Each of the paths listed in the pacing guide provides a total of days as well as a total number of minutes. The days and minutes are listed in total as well as broken down per set of TEKS, with an optional mini-lesson, the actual lesson, a review and quiz, and extensions for the "TEKS Extended Path."

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

The materials provide a TEKS-based organization that explains the teacher is not trapped in a
rigid structure of units-chapters-lessons. The material provides guidance on the sequence of the
content. The material provides a detailed scope and sequence that is TEKS-based and outlines
the TEKS in the strategic sequence to be taught. The TEKS are taught through lessons that follow
a developmental progression for the appropriate grades.

- Each lesson purposely groups modules together that have similar recurring themes and ideas, making it easier for students to connect scientific knowledge. The lesson on "Light" starts by listing the SEPs and RTCs that are covered throughout the lessons. The same SEPs and RTCs are covered in the next unit on "Objects in the Sky," making it easier for students to connect the knowledge. The materials provide guidance for strategic implementation that ensures the sequence of kindergarten content is taught in an order consistent with the developmental progression of science. The pacing guide offers options for adjusting the time spent on particular units without disrupting the sequence of content.
- The skills tracking section supports teachers in identifying the developmental progression of
 content and skills. For example, on "Day 5," "Evaluate," and "TEKS Quiz," the "Item Analysis
 Chart" shows the specific standards covered in each assessment question to assist in monitoring
 children's progress.

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

- The scope and sequence indicates a majority of the lessons support the development of the TEKS and SEPs. This is shown in the Teacher's Guide, which displays the scope and sequence along with the SEPs and RTCs beside it.
- The material provides teacher guidance on how to make adjustments to extend units and lessons within the Teacher's Guide in the event that scheduling allows for additional instruction. For example: "TEKS K.12.A, Planning, Lesson at a Glance, Time: 5 days, (30 minutes per day), EXTENSIONS: Choose none, some or all of the following, 1 DAY: ELPS English Language Development Minilesson K.7.1, 2 DAYS: Elaborate, FUNomenal Reader: Let's Explore Things Plants Need, 5 DAYS: Elaborate, Performance Task: Do Plants Need Air?, 5 DAYS: Elaborate, Performance Task: Natural Resources as a System."
- The material includes units, lessons, and activities for a full year of instruction. The units can be implemented within the time constraints of a school year, and the activities and routines within each lesson can reasonably be completed within the length of time suggested.
- The materials provide information for the teacher that allows for time adjustment based on the path students follow. The materials are designed to cover the grade-level science TEKS based on the district schedule for science instruction. The materials provide flexibility and can be covered in a school year.

Indicator 9.1

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

1	Materials include an appropriate amount of white space and a design that supports and	Yes
1	does not distract from student learning.	
2	Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.	Yes
2	engagement without being visually distracting.	
3	Materials include digital components that are free of technical errors.	Yes
٦		

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.

- In digital student interactive lessons, the pictures and graphics support student learning and engagement without being visually distracting by having clear headings, subheadings, and images. The margins, edges, and empty spaces around the edges of the content and font used are consistent throughout the range and do not cause distraction. The materials include adequate white space around text in both digital and print formats, and all images in both have enough color contrast to distinguish the focus of the image from the background in both the student material and the teacher's guide.
- The materials include an appropriate amount of white space and a design that supports and
 does not distract from student learning. The materials and lessons clearly explain the lesson
 with titles, instructions, and sidebar information. The materials flow well, with clear
 subheadings and images throughout the lesson.
- Teacher guidance K-2 materials are designed with precise, designated places for important
 information. For example, materials use color-coded callout boxes to identify essential details in
 "Lesson at a Glance" quickly: the "Engage" section is green, the "Explore and Explain" is blue,
 "Elaborate" is violet, and "Evaluate" is yellow.
- The digital teacher guidance materials are easy to access. The materials include links to ancillary
 materials teachers can access to support differentiated learning within units and make access to
 critical information easy for planning and implementation, as seen in all of the TEKS under
 "Differentiated" sections, "Pocket Labs," "Ed online," and "Planning for Assessment" to list a few
 locations within each lesson).

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

- The materials embed age-appropriate pictures that support student learning and engagement without being visually distracting. For example, the materials include vocabulary cards with clear and authentic images to define and keep the new words students are learning, as shown on flipover pictures of the *Moon*, *Star*, and *Sun* (Day 1: "Engage" (TEKS K.9.B)).
- The materials embed age-appropriate pictures and graphics that support student learning and engagement. In the student interactive lesson on the properties of objects, a video includes images of grapes, oranges, lemons, tomatoes, and watermelons. The age-appropriate robot character asks questions to support student learning.
- Materials embed age-appropriate pictures and graphics that support student learning and
 engagement without being visually distracting. The materials provide age-appropriate pictures
 and drawings for each grade level. The images are easy to view and easy for the students to
 relate to.
- The materials embed age-appropriate pictures and graphics that support student learning
 without being distracting. For example, in the lesson "K.7A, Magnets," the images for the
 "Explore" activities provide visuals for students who may require additional support or guidance.
 The students in the images are real students from various backgrounds, ethnicities, nationalities,
 and genders.
- The materials incorporate age-appropriate pictures and graphics to support student learning and engagement. Grades K-2 materials utilize real-life photos of various students to provide visual support for vocabulary, activities, and content application, as seen in both student and teacher materials (online and print).

Materials include digital components that are free of technical errors.

- The grade K materials include digital components that are free of technical errors. The digital
 Teacher's Guide, Student Interactive Lessons, Reports, Teachers' Corner Tabs, videos, and HMH
 website are free of technical errors, including spelling and grammar errors, inaccurate content
 materials, and wrong answer sheets.
- The materials are free of technical errors within the digital components. The materials are free of spelling, grammar, and punctuation errors. The materials are free from inaccurate content materials or information.

Indicator 9.2

Materials are intentionally designed to engage and support student learning by integrating digital technology.

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

Not Scored

Materials are intentionally designed to engage and support student learning by integrating digital technology.

Materials integrate digital technology and tools that support student learning and engagement. Materials integrate digital technology to support student engagement with Science and Engineering Practices (SEPs), Recurring Themes and Concepts (RTCs), and grade-level content. Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate. Materials integrate digital technology that is compatible with a variety of learning management systems.

Evidence includes but is not limited to:

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

- The K-2 materials integrate digital technology and tools that support student learning and engagement. For example, digital technology and tools enhance student learning through interactive slides in the "Vocabulary" section of each TEKS lesson and online "Daily, Formative and Summative Assessments."
- The materials integrate digital technology and tools that support student learning and engagement. The materials provide digital student interactive lessons from which the teacher can directly teach. The materials offer tools such as note-taking, text-to-speech, speech-to-text, highlighting, bookmarking, and editing abilities. The lessons provide links to additional digital resources for teachers. In the "Matter: Properties of Objects" lesson, the Ed Online portion offers speech-to-text support and an audio option. The materials state that the speech-to-text allows emerging writers the ability to record their oral responses. The materials state the audio feature allows additional support for emerging readers who need to hear the text aloud.
- The materials provide teacher guidance for using online-related activities to support student learning. For example, in the lesson "K.6A, Matter", Day 1, under the "Can You Explain It?" section, the materials guide the teacher to utilize an online resource (a video) before introducing the "Guiding Question" to the students. Students then create connections to what they may already know and what they wonder about.

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

- The materials integrate digital technology to support student engagement with Science and Engineering Practices (SEPs), Recurring Themes and Concepts (RTCs), and grade-level content. The lessons extend through digital interactive lessons offered through the program. Each lesson includes links to interactive lessons reinforcing Science and Engineering Practices, Recurring Themes and Concepts, and grade-level content. The interactive lessons provide access to a Google Classroom for students.
- The materials integrate digital technology to support student engagement with science and
 engineering practices, recurring themes and concepts, and grade-level content. The materials
 offer interactive opportunities for students within the lessons. During the activity, students can
 utilize and practice vocabulary words and concepts directly related to the TEKS. Many lessons
 have students drag and drop images to match their descriptions or vocabulary words.
- The "Interactive Student materials" include opportunities for students to obtain, evaluate, and communicate information using digital tools. For example, materials include images students can interact with by clicking on them to gain additional information, activate prior knowledge, and interact with vocabulary words, as seen in the lesson "K.7A, Forces." The "Interactive Student Lessons" incorporate videos and opportunities to record their responses to questions.
- The materials provide digital tools for students to engage with recurring themes and concepts. For example, in the "Interactive Student Lesson materials," Day 3 Exit Ticket, students identify the cause and effect by dragging the words to the correct image.

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

- The materials integrate digital technology that supports teacher-to-student collaboration. The digital interactive student lessons allow students to select a text and then highlight or take notes about it. Students share their notes in the "Review" tab with the teacher. The digital interactive lessons can also be shared in Google Classroom, providing a collaborative space to post assignments and provide feedback.
- The materials integrate digital technology, providing teachers and students with collaboration opportunities. The online interactive lesson offers lesson extensions. The teacher can assign an interactive lesson to the whole class or assign particular students to group them for more detailed collaboration.
- The digital materials provide opportunities for students to collaborate with other students. The teacher can assign Interactive Lessons to preset groups of students so they may collaborate on the activity(ies). For example, in the lesson "K.6A, Matter," the Teacher's Guide "Pocket Lab" section states that the teacher may assign an activity to the students for online collaboration through the Ed Online resources (under discover and then assign).
- The materials integrate digital technology that supports teacher-to-student collaboration. The
 materials in the Online Ed "My Classes" tab provide a Virtual Classroom connected to Google
 Classroom so that the teacher and student may collaborate with other students.

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, and smartphones.

- The materials integrate digital technology that is compatible with a variety of learning management systems. The materials state that the following operating systems can provide accessibility: ChromeOS / Chrome / ChromeVox, Windows 10 / Chrome / JAWS, Windows 10 / Firefox / NVDA, Mac 10.15 & 11 / Safari or Chrome / VoiceOver, and iOS 13&14 / Safari / VoiceOver. The materials state the following applications offer magnification tools: Windows & Chrome OS: Magnifier and Mac: Zoom. The materials provide support for the teacher on accessibility.
- The materials integrate digital technology that is compatible with a variety of learning management systems. The materials are compatible with Canvas, Schoology, and Google Classroom to enhance student learning.

Indicator 9.3

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

1	Digital technology and online components are developmentally appropriate for the grade	Yes
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.	
2	Materials guide teachers in using embedded technology to support and enhance student	Yes
2	learning.	
2	Materials are available to parents and caregivers to support student engagement with	Yes
3	digital technology and online components.	

Not Scored

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

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 guide teachers in using 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.

- Materials provide information identifying how online and digital components align with gradelevel science knowledge and skills. The materials provide related TEKS and ELPS for online and digital elements within the Teacher's Guide.
- 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. The
 materials provide features to support accessibility of the TEKS supplied in the scope and
 sequence to ensure skills progression. Examples include speech-to-text, text-to-speech, notetaking, highlighting, and more. The assessments allow for editable color schemes, changes in
 font size, and various zoom features.
- The digital technology and online components align with the progression of the grade-level scope and approach to science knowledge and skills. For example, the online materials follow the same scope and sequence as the printed materials, as listed in the Teacher's Guide and materials.
- The digital technology and online components are developmentally appropriate for the grade level. For example, the digital and online components provide accessibility tools such as text-to-speech, speech-to-text, drag and drop, highlighting, note-taking, and many other tools to make the materials easily accessible for the students.

Materials guide teachers in using embedded technology to support and enhance student learning.

- The materials guide teachers in using embedded technology to support and enhance student learning. The "Teacher's Corner" tab offers a "Teacher Success Pathway" that provides videos and professional development training to assist the teacher in appropriately using the materials. The materials offer "Getting Started with Ed and Schoology." The materials state: "Explore an interactive classroom to become acquainted with key instructional resources to organize your classroom better. Then, you'll watch a short model lesson to see how the resources you'll need in your first week come together in a lesson."
- Materials guide teachers in using embedded technology to support and enhance student learning. The sidebars of each lesson provide the teacher with additional resources to use. The lesson offers guidance on accessing interactive lessons and digital opportunities for differentiation, reteaching, and emergent learners.
- The materials provide teacher guidance for using the embedded technology to support and enhance learning. For example, in the Teacher's Guide, each lesson and each day, the materials incorporate side notes titled "Ed Online" that share available online resources, as seen in the lesson "K.7A, Magnets," Day 1, "Engage." The Ed Online guides teachers, stating they can utilize the speech-to-text interaction online for "emerging writers to record their oral responses, allowing students to complete work independently, allowing you to review their responses later."

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

- Materials are available to parents and caregivers to support student engagement with digital technology and online components. The materials provide a letter teachers can send home to parents that assist them with accessing materials to help their students. The letter includes information on logging in to Ed, downloading lessons, how to interact with the lessons, and exploring "FUNomenal Readers."
- Materials are available to parents and caregivers to support student engagement with digital technology and online components. Materials provide templates for the Beginning-of-the-Year letters, Middle-of-the-Year, and End-of-the-Year letters. Teachers can provide parents with information regarding the lessons' technological and online components.
- The materials provide families with tips on supporting appropriate student engagement with digital and online components, as seen in the "Family Room" in the online resources, including topics: "Getting Started," "Family Support," and "Shareables."