HMH Into Science Texas Grade 2

HMH Into Science Texas Grade 2 Executive Summary

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

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

Section 2. Instructional Anchor

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

Section 3. Knowledge Coherence

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

Section 4. Productive Struggle

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

Section 5. Evidence-Based Reasoning and Communicating

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

Section 6. Progress Monitoring

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

- The assessments are clear and easy to understand.

Section 7. Supports for All Learners

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

Section 8. Implementation Supports

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

Section 9. Design Features

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

Section 10. Additional Information

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

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Indicator 2.1

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials provide multiple opportunities to develop grade-level appropriate scientific and engineering practices, as outlined in the TEKS. For example, in the "All About Sound" lesson, students demonstrate and explain that sound is made by vibrating matter and that vibration can be caused by sound to practice and demonstrate TEKS 2.8A. Additionally, in the "Observing Objects in the Sky" lesson, students ask questions that can be answered using evidence from their using telescopes investigation. The teacher leads a group discussion for students to review and share their questions on their observations. Students practice sharing their claim and evidence to support the 2.9B TEKS.
- The materials provide hands-on activities that allow students to practice and demonstrate scientific and engineering practices. The lesson on "Sounds," Day 2, provides an activity that

begins by explaining sound and vibrate. The lesson provides a list of materials needed and reviews safety with the students. The lesson utilizes a self-made drum, and students record what they observe as they tap the drum at various speeds and pressures. Students record the findings of their investigation before providing claims, evidence, and reasoning. Students use engineering skills to design a device that uses sound. Students are instructed to design a device to communicate across a playground that uses tools and materials that use sound to solve a problem. Students draw their designs and explain the materials needed for the device. The student then answers questions about their designed device.

- The materials provide multiple opportunities to develop SEPs, as seen in the "Scope and Sequence." For example, SEPs 1, 2, and 3 are found throughout the year, as seen in TEKS 2.6, 2.7, 2.8, 2.10, and 2.11. The assessment items include SEPs to give students multiple opportunities to prove mastery of the SEPs throughout the year. For example, the 2.3 assessment tests students' mastery of evidence-based explanations and communicates findings, conclusions, and proposed solutions.

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," "Environments," "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 structure of plants, including their roots, stems, leaves, flowers, fruits, and seeds, and comparing how those structures help different plants meet their basic survival needs, utilizing 2.5.F. Throughout the lesson, students describe the relationship between the structure and function of the organism and how those structures help plants meet their basic survival needs.
- The materials identify overarching concepts using recurring themes and show how they connect within the materials. The "Earth's Materials" lesson uses the recurring theme of analyzing a system in terms of its components and how these components relate to each other within the "Reduce, Reuse, Recycle" lesson.
- The materials provide multiple opportunities to use recurring themes in making connections between and within overarching concepts and use the recurring theme of finding patterns within activities of all the lessons. For example, the "Investigates Life Cycle" unit utilizes patterns as a recurring theme throughout the lessons when students observe phenomena to help make sense of the butterfly and frog life cycle. Additionally, throughout the materials, students are asked questions such as "What do you notice?" and "What are the patterns?" The "Objects in the Sky" lesson provides an activity where students list patterns they observe based on what they know in the photos provided.
- The materials identify overarching concepts using recurring themes and show how they connect with the materials. For example, materials use recurring themes, including structure and function, systems, models, and patterns, as seen in 2.6, 2.10, 2.11, 2.12, and 2.13, where students describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same.

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

- The material integrates 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 "Force" lesson, students explain how objects push on each other and may change shape when they touch or collide. The lesson also includes the section "Can You Explain It?" which provides a "Phenomenon Video" and a "Guiding Question": "What causes the bean bag chair to change shape?" which can help develop students' content knowledge and skills.
- 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 at varying points in lessons and units throughout the grade level. The "Claims, Evidence, and Reasoning" 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 are achieving proficiency in the concepts within the content and in the context of the SEPs and RTCs.
- The materials provide opportunities for students to conduct investigations throughout the year and provide support for increasing complexity in student-led inquiry and investigation. The "What Do You Already Know" section of the lesson guides the teacher in reviewing 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.

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

- The materials include opportunities for students to ask questions and plan and conduct investigations by providing regular opportunities for students to raise questions about phenomena. Within a lesson on "Animal Survival," students make an ant farm to record and compare how being a part of a group helps animals get food. 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.
- The materials provide opportunities for students to engage with scientific and engineering practices multiple times and in various hands-on activities, "FUNomenal Readers," "Connection to Community" activities, "Read Write and Share" activities, "I Wonder" discussions, "Phenomenon" videos, and visual aide anchor charts. This provides 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 encourage student discussion. The materials provide the teacher guidance on how to support the students' answers. The materials allow students to create end products for engineering tasks, such as physical devices, prototypes, models, drawings, or processes.

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- 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 “Resources” begins with the teacher providing a guiding question: “Where do the things we use every day come from?” The lesson provides a cross-curricular connection where students read, write, and share. The students write two questions to ask an engineer and share them with a partner. Students plan how to answer questions and follow through with a plan.

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Indicator 2.2

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- The materials embed phenomena as a central anchor that drives student learning across grade-level content in each discipline (earth/space, life, 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 units provide opportunities for students to develop, evaluate, and revise their thinking as they figure out phenomena and solve problems.
- The materials embed recurring themes and concepts (RTCs) across units. For example, in a 2.8B lesson on sound, the RTC is patterns. Students are asked to identify the patterns in pitch or volume based on their observations in an activity using a rubber band. In another lesson on living and nonliving things, the materials ask students what they notice about the patterns of living things. This RTC can also be found in 2.13A on "Structures and Behaviors of Living Things."
- The lessons in the materials include 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.
- The grade 2 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 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. For example, in the "Plants Depend on Animals, Wind, and Water" lesson, students activate prior knowledge by discussing what they learned in previous lessons or may know about how living things depend on each other in a food chain. Students model with a hands-on activity how some plants depend on living things, water, and wind to move seeds.
- The materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems by providing a connection to the community portion within each lesson. The connection to the community allows students to apply the phenomena outside of the school setting. For example, the "All About Sound" lesson provides the opportunity for students to apply their knowledge by finding objects in their homes that use various types of sound. Students are encouraged to share with their families the relationship between sound and vibration.

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

- The "What Do You Already Know?" section, under Day 1, "Engage," 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. The "Physical Science" unit introduces the phenomenon that sounds and vibrations are related to each other. Throughout the lesson, students demonstrate and explain that sound is made by vibrating matter. Students use the data they collect to explain vibrations in the form of sound waves traveling through solids, liquids, and gas.
- The materials provide clear outlines for the teacher based on the scientific concepts and goals related to the phenomena and engineering problem. The lesson on sound provides the teacher with the phenomenon that sounds and vibrations are related to each other. Students conduct investigations pertaining to the phenomena to collect evidence to support the goal.
- Each lesson found in the materials identifies a lesson objective that students will learn based on the phenomena presented and engineering problems. The lesson "Objects in the Sky" introduces the lesson objective that students will describe the sun as a star that provides light and heat and explain that the moon reflects the sun's light. The lesson provides the teacher with the phenomena that support the lesson objective as well.

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Indicator 3.1

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

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

Meets | Score 6/6

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. In the grade 1 lesson “Structures and Behaviors of Living Things TEKS 1.13,” the lesson 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 basic needs for survival.
- The materials connect new learning to previous and future learning across grade levels. For example, in the “TEKS 2.13 Structures and Behaviors of Living Things” lesson, materials include an overview that explains how students have engaged with life science concepts in grades K-1. In grades K-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, grade 1 students identify and describe how people, plants, and animals use rocks, soil, and water. Then, in grade 2, the unit complexity progresses to model a food chain that reveals the path of energy from producers to consumers.
- The materials are vertically aligned and designed for students to build and connect their knowledge and skills across grade levels. For example, in grade K, students learn about the forces of push and pull. In grade 1, students build upon that knowledge to understand that pushes and pulls are forces that cause a change in motion. Then, in grade 2, students transfer these concepts to expand their knowledge in a lesson on how force and motion can change an object's position and shape as objects collide. In future grade levels, students learn how forces such as gravity can act upon an object through contact or distance.
- 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. For example, in a "2.12B Food Chain" lesson, students learn how living things depend on other living things for energy. In a "2.12C" lesson on how plants depend on other living things, students learn how plants depend on other living things, water, and air to move their seeds.

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 2 lesson, students are introduced to how plants need living things to survive by first connecting to their place in the food chain. The lesson then has students complete two hands-on activities where they first explore how pollen is spread and then how seeds rely on animals, water, and air to move. The lesson then moves to representational reasoning when students explore an image gallery to identify how those plants depend on water and wind to move their seeds. The lesson ends with students answering the question "How do plants depend on animals, wind, and water?" citing evidence and reasoning.
- The materials include a progression of concrete to representational before abstract reasoning when presenting concepts that allow for increasingly deeper conceptual understanding. For example, in the lesson for "TEKS 2.7.A," students use tops, books, and a ball to explore what happens when objects touch or collide. Later in the lesson, students use the "Cause and Effect Science Themes Graphic Organizer" to record what happens when spinning the top, then roll a ball to collide with the top. They draw and label a picture to explain what happens when a top and ball collide and use the words *push* and *collide* in their labels.
- The 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. In the "Sun and Moon" lesson, students collect data and create a model of the Sun, Earth, and Moon. Students use their prior experiences and data gathered in the exploration phase to formulate scientific ideas during this phase of the lesson. Materials then direct teachers to introduce them to the term *stars*.

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

- Materials use the “5E (Engage, Explore, Explain, Elaborate, Evaluate)” instructional model for sequencing science instruction. During the “Engage” phase, materials provide a “What Do You Already Know?” section to activate prior knowledge and group discussion; a “Vocabulary” section that indicates key vocabulary for the lesson; a “Can You Explain It?” section with a video and a guiding question; an “I Wonder” section to provide an opportunity to elicit children’s questions, record them, and explain to them that questions will be answered as they move through the lesson. During the “Explore” phase, students conduct two or three days of hands-on activities to explore and experiment, gather data, and discuss observations. In the following “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, teachers evaluate the proficiency of children across the curriculum, and materials provide resource tips.
- 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. The materials also include the “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 clearly present grade-specific core concepts, recurring themes and concepts, and science and engineering practices. The grade 2 materials use the 5E (Engage, Explore, Explain, Elaborate, Evaluate) instructional model for sequencing science instruction. In the “Changes on Earth's Surface” lesson, the teacher engages the students by asking, “What can move rock and soil particles across Earth's surface?” The students use a stream table to explore how wind moves soil and rock across Earth’s surfaces. Students research the natural landscape in their community and then explain how erosion formed it over time. The teacher elaborates by leading a group discussion on what can move soil and rock particles. The lesson ends with a quiz to evaluate learning.
- The grade 2 materials accurately present scientific content that is current and reflects the most current and widely accepted explanations. The “Measure Weather” lesson introduces students to measuring, recording, and graphing weather information. The lesson includes accurate information on the weather being the state of Earth’s atmosphere and describes how hot or cold, clear or cloudy, calm or windy, or wet or dry it is.
- The materials accurately provide instruction in grade-specific core concepts, RTCs, and SEPs. For example, materials use the 5E instructional model for sequencing science instruction. In a grade 2 lesson, students Engage in a lesson on investigating different types of severe weather (“2.10C”) by first scaffolding prior knowledge of weather characteristics and how they affect their daily choices. The lesson then moves into two hands-on Explore/Explain activities to help students investigate and describe severe weather and understand that certain types of severe weather are more common in some areas than others. The Elaborate phase incorporates science and careers by focusing on hurricane hunters and how their research has impacted our lives. The lesson is then concluded with the Evaluate phase, students prove their mastery of the concept through a review and quiz.

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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. For example, in a grade 2 unit on “Force, Motion, and Energy,” materials provide guidance for students who do not formally understand how objects push on each other and may change shape. Materials direct teachers to emphasize that dropping a ball over clay can change its shape.
- 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; student learning objectives are provided for each lesson. The “Resources” unit is labeled with “TEKS 2.11.A” with a description. The “Sort Resources” lesson starts with the lesson objective that “children will be able to distinguish between natural resources and resources made by people.”
- The materials provide unit objectives for each unit and student learning objectives for each lesson. The Teacher’s Guide provides daily “Objectives” or “Learning Targets” for students. For example, in the grade 2 lesson “2.7A,” the Day 2 Learning Objective is “Children will be able to observe, measure, and compare the causes and effects when objects collide.” The Day 3 objective is “Children will be able to explain how objects push on each other and may change when they touch.”

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Indicator 3.2

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

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

Meets | Score 6/6

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

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 materials provide teachers with a detailed scope and sequence that shows the vertical and horizontal alignment and TEKS covered in and across grade levels. The scope and sequence provide alignment for all of the TEKS covered for the grade bands. For example, the lesson "Objects In the Sky" begins by having students describe the Sun as a star that provides light and heat and explain that the Moon reflects the Sun's light. The lesson progresses to students being able to compare the brightness of spots of light shined from varying distances and explain why some stars, including the Sun, seem brighter than others. The lesson provides the progression for students to use a model to illustrate how the Moon reflects light from the Sun.
- 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 connects to previous learning within the units, 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. For example, kindergarten students identify, describe, and predict patterns that occur with objects in the sky during the "Objects and Patterns in the Sky" unit. Then, in grade 1, they connect to and build on that learning when they describe and predict the patterns of daylight, seasons, and clouds during the "Patterns on Earth" unit. Grade 2 students build on the learning from previous years when they discover patterns of the Moon and clouds during the unit "Objects in the Sky."

- The materials support teachers in understanding how new learning in "2.7A Force, Motion, and Energy" connects to prior knowledge from kindergarten, "K.7 Magnets," and from grade 1, "1.7A Pushes and Pulls." In the "Activate Prior Knowledge" section for "2.7A," the materials explain, "In the prior grades, children learned how pushes and pulls can start, stop, or change the speed or direction of an object's motion."
- The materials explain how content and concepts increase in depth and complexity across lessons and units within the grade level. For example, "Lesson 2.8A" in the Teacher's Guide, Day 4, "Elaborate," under "Can You Explain It?" states students should have developed the understanding that sound is energy caused by vibrations (vibrations create sound). In "2.8B," the materials guide the teacher to understand that children's knowledge of sound energy should have grown in depth by understanding pitch and volume. In "2.8C Communicate with Sound," the "Activate Prior knowledge" section explains: "In the prior lessons, children explored that sound is energy caused by vibrating matter and that it has properties of pitch and volume." The materials further explain that children should now grasp how sound is used to communicate after designing and building a tool for communication.

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. Materials provide teachers with a "Science Themes Organizer" for grades K-2 on "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 2.10.A" unit includes an "Extra Support" section under "Differentiation" that suggests that if children need additional support making observations, teachers should ask questions such as, "Where does the water go? What happened to the rocks? What changes do you notice in the soil?" However, there is no evidence of identification of common misconceptions students may have about weather.
- The materials include background information for teachers that provides explanations and examples of science concepts. In the "Objects in the Sky" lesson, the "Teacher Background" section states early astronomers used their eyes to observe the stars and make constellation maps. The invention of the telescope made it possible to view objects in the sky more clearly.
- The materials identify common grade-level misconceptions students may have about science concepts. The "Model of Sun, Earth, and Moon" lesson states some students may have misconceptions and have a hard time understanding how the Sun's light reflects off the Moon. The teacher will use a mirror, flashlight, and foil-covered ball to explain this process.

- 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, in the lesson “Living Things and Environments,” Day 2 provides differentiated instruction for teachers. It offers guidance for the teacher to have students think about other parts of an environment, such as food, space, and shelter. The teacher can ask students to explain how changing one of these parts either by increasing it or decreasing it would affect the plants and animals that live there.
- The materials include background information for teachers that provides explanations and examples of science concepts. Materials provide background knowledge to help students gain an understanding of the concept(s) being taught. For example, in a grade 2 lesson (“2.9B”), “Teacher Background Knowledge” states: “The invention of the telescope made it possible to more clearly view objects that were much farther away, such as the planets.”
- The materials provide possible student misconceptions about the grade-level concept. For example, in the lesson “2.9A,” under “Differentiation: Extra Support,” the materials state: “Some children may have difficulty seeing or understanding how the sun's light (flashlight) reflects off the moon (foil-covered ball).” (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 also highlight key features of the instructional design. For example, materials provide a rationale for using the “5E” model for learning, as explained in Teacher's Guide. Teachers wanted lessons to have a clear structure, so the materials follow the “5E Structure” for each lesson (“Engage, Explore/Explain, Elaborate, Evaluate”). Materials are 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 “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.
- “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 explanations on 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” that explains the design and how to utilize the program materials.
- The materials provide a “Program Overview” that 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”).

HMH Into Science Texas Grade 2

Indicator 4.1

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

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

Meets | Score 4/4

The materials meet the criteria for the 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 support students' meaningful sensemaking. For example, in the lesson where students examine "Earth's Surface and Weather," the materials state: "Children will understand that soil, sand, and gravel can be used to model a natural landscape; that wind moves sand, soil, and gravel, but it moves sand and soil more easily because they are smaller than gravel; and that water causes erosion by moving sand, soil, and rocks across Earth's surface." In the "I Wonder" section of the Day 1 "Engage" lesson, students watch a video on what can move soil and rock particles across Earth's surface. Students record what they wonder about what can move soil and rock particles and ask questions about what interests them in the video. Their questions will be answered as they move through the lesson. Students use the evidence they gather through hands-on activity and explorations. During the Days 2, 3, and 4 "Explore/Explain" lessons, students make a model of a section of land that a stream of air or

water will run through, record their measurements, share and discuss with a partner, and write their ideas.

- Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers. The Day 3 lesson on "Forces and Motion" provides an explanation of sensemaking. The materials explain that students will understand how a push can change the motion and shape of an object. Students participate in an activity using modeling clay, a large marble, and a clear plastic cup. The students use the clay to investigate its effects during the movement.
- The materials consistently provide learning activities that support students' meaningful sensemaking. For example, in the lesson on "2.7A Forces," students are given the guiding question, "What causes the beanbag chair to change shape?" and two images: one of a person standing next to a beanbag and the other of someone sitting in a beanbag. Then they explore and act like scientists and engineers while observing what happens when spinning tops collide. They ask questions, make predictions, and investigate the "Cause and Effect" of objects colliding. They then investigate what happens when balls collide as they move down a ramp. On Day 5, the students read a short passage, "People in Engineering," about Janelle Montoya, then design packaging that would keep an egg from breaking. Students draw and label their ideas on paper. This lesson incorporates a combination of 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 with grade-level appropriate scientific texts. The materials support pre-reading with visual vocabulary slides in all TEKS lessons on Day 1. For example, in the lesson "TEKS 2.10.A," in the section "What Do You Already Know?" there is a photo where students can click on each part and read or see an explanation of the phenomena of water, rocks, and soil. The next section is "Vocabulary," with a slide showing the word *erosion* and its definition.
- The materials allow students to engage in purposeful and targeted activities with grade-level appropriate scientific texts. "Living Things in Their Environment" uses the "FUNomenal Reader: Where in the Zoo" to engage students in animal environments. In the reader, a zoologist determines the correct environment for several animals.
- The materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts for purposeful and targeted learning. For example, after students investigate "2.12A Organisms and Environments," they use the "FUNomenal Readers" (available in three levels) titled "Where is the Zoo?" The materials provide teacher guidance and support on incorporating and utilizing the readers with graphic organizers and vocabulary activities.

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. The "Patterns Science Themes" graphic organizer introduces students to the RTCs of patterns. Students use the organizer to make sense of the phenomena of patterns in weather. On Day 2 of "Explore/Explain," during the lesson "Observe Objects in the Sky," students use the "Patterns Science Themes Organizer" to record patterns they notice in the observations they made with and without a tool.

- 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. In a lesson on "Forces," under the section "Read, Write, Share," students re-read their observations and write about how objects can change shape when they touch or collide. The materials also state the students can make a list, write a paragraph, or draw pictures and label them before sharing them with a partner.
- The materials provide opportunities for students to communicate thinking on scientific concepts in written modes. For example, in the lesson "2.13A Plant Structures and their Functions," the materials provide a writing organizer to help with language acquisition of vocabulary and academic language. Materials also provide a structure and function graphic organizer to help students make sense of the plant structures and their functions in helping plants meet their needs.
- The materials provide opportunities for students to communicate thinking on scientific concepts in graphic modes. For example, in the lesson "TEKS 2.13.A," students record data and ask and record answers with the evidence gathered from observations. Students compare plant parts and how stems and roots are alike and different, and then they draw a root and turn and talk to a partner about how that root helps the plant meet its needs. Additionally, during the "Elaborate" portion of lesson "TEKS 2.7.A," students design packaging that would keep an egg from breaking, draw it, and label it to show their ideas.

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

- The materials provide authentic student engagement and perseverance of concepts through productive struggle while acting as scientists and engineers. In the "Ramps and Motion" lesson, students plan and conduct an investigation to determine how the tilt of a ramp affects the motion of an object; demonstrate how pushes and pulls can change the motion of an object; and identify whether or not the object is magnetic. Students make a claim about their ramp's tilt effect and use evidence to support their claim and reasoning when discussing with a peer.
- The materials create transfer opportunities for students to take what they have learned and use it flexibly in new situations. After investigating how units can be combined or reassembled to form new objects, students build and model new objects. Students use clay, erasers, toothpicks, plastic bags, and paper clips to plan and build an object. This activity reinforces the concept that the same parts or pieces can be reused to make different objects.
- 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 provide embedded "Student as Scientists" features that provide asset-minded strategies for addressing past STEM learning trauma and fostering student academic identity.
- Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively

struggle. The lesson on “Living Things and Environments” provides a section titled “Claims, Evidence, and Reasoning.” The students think about their model with the seed and make a claim that explains how to plant seeds depending on animals, wind, or water. The students support their claims with evidence from the model and explain their reasoning to a partner.

- Materials prioritize students making evidence-based claims to construct explanations of how and why the phenomena or problem occurs. For example, in a grade 2 lesson on “Seeds,” the materials guide students in sense-making through an “Explore” activity, where students create a model moving seeds. Students design a model to demonstrate how a seed can be moved by wind, water, or living things. This activity helps students make sense of how some plants depend on other living things as well as wind and water to move their seeds and for pollination. At the end of the activity, students are then expected to use “Claim Evidence Reasoning” to make a claim about how plants depend on animals, wind, and water and support their claim with evidence.

HMH Into Science Texas Grade 2

Indicator 5.1

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

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

Meets | Score 4/4

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

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 lesson "TEKS 2.9," students demonstrate that the Sun provides heat. On Day 3, students measure and record the temperature using a thermometer. While waiting for the thermometer to record temperatures, students predict what will happen to the thermometers, explain their reasoning, and discuss their results with their partners. To model the thinking process, the section "Children as Scientists" states: "Remind children that they act and think like scientists when they make predictions and then conduct an investigation to test those predictions. Were their predictions correct? Why or why not?"
- The materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims. In the "Observe Objects Collide" lesson, students use the "Cause and Effect Science Theme" organizer to support their evidence on the cause and effects when objects collide.
- The materials prompt students to use evidence when supporting their hypotheses and claims. For example, in the "TEKS 2.10.A" lesson about using a stream table to investigate and describe how water moves soil and rock particles across the Earth's surface, the materials provide

students with the following sentence starters in the section "Claims, Evidence, and Reasoning" after the investigations: "My claim is… Wind and water can… My evidence is… My model shows that… My evidence is... My evidence supports my claim because…." Materials direct teachers to prompt students to use evidence from observations made of the stream table to make a claim about how wind and water can change Earth's surface, talk to a partner about their reasoning, and explain the properties of materials that make up soil.

- The materials provide opportunities for students to develop how to use evidence to support their claims through teacher guidance. For example, in lesson "2.13C, Animal Survival," on Day 2 "Explore," there are sentence stems the teacher may use to help struggling students understand how to use evidence to support their claims.
- The materials prompt students to use evidence when supporting their hypotheses and claims. In the lesson "Earth Materials: Reduce, Reuse, Recycle," on Day 3 of "Explore/Explain," in the Claims, Evidence, and Reasoning portion, students make a claim and support it with evidence and reasoning. The materials provide the following sentence frames: "My claim is that recycling and reusing… My evidence is… My evidence shows that… My solution supports my claim…." Students make a claim about how recycling and reusing conserves resources; they support their claim with evidence and use what they learned from their solution as evidence. Finally, students discuss their reasoning with a partner and connect their claim to reasoning.
- The materials provide opportunities for students to develop how to use evidence to support their claims. For example, in lesson "2.13C," Day 2 "Explore," under Claims, Evidence, and Reasoning, materials prompt students: "Make a claim about how being part of a group helps animals get food and deal with changes. What is your evidence? Use details from the observations you made in the investigation."

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

- The materials present scientific vocabulary using multiple representations. For example, the material for lesson "TEKS 2.8.A" includes an interactive picture where students can click on each letter and read about concepts such as "Sound is a type of energy. When a balloon bursts, it makes a loud pop. That pop is energy." The "Read, Write, Share" includes interactive pictures of vocabulary that flip to read *energy*, *sound*, and *vibrate*.
- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience to help students contextualize new terms. In the "All About Sound" lesson, students use the "Language Development Worksheet" during the hands-on activity when they come to a highlighted vocabulary work in the lesson. The worksheet provides a chart asking for the word, the word's meaning, an example or picture, and words the student knows that are similar.
- The materials present scientific vocabulary using multiple representations. For example, in the "Level of Sound" lesson, students learn and remember pitch and volume vocabulary words in several ways: They write down the vocabulary word and add examples or pictures to show what the word means. They speak the vocabulary words with the "I say, You say" routine. They use the language development worksheet and review and refer to the "Vocabulary Anchor Chart." Additionally, in lesson "2.7B, Changes in Motion," new vocabulary words are introduced using images and kid-friendly language at the beginning. The "Student Interactive Edition" incorporates flashcards and a picture glossary of scientific terms.
- Each lesson includes opportunities to preview scientific vocabulary in context. For example, Day 1 of "The Sun and Moon" introduces the vocabulary words *moon*, *star*, and *sun*. The materials

include each word with an image of a word that relates to it. 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 develop how to practice argumentation and discourse. For example, materials introduce students to constructing an argument for their own interpretation of the observed phenomena. Teachers remind students that they are scientists when they ask questions and figure out ways to answer them through making observations, conducting experiments, and gathering evidence. Teachers remind students they should use the evidence gathered through the hands-on activity and explorations to answer the questions and generate new ones.
- The materials integrate argumentation and discourse within stages of the learning cycle. In the "Sort Resources" lesson, students create a poster with pictures showing items found in nature or something made by tools or machines. Students discuss their sorting process in small groups and what may have made it hard to sort these resources.
- The materials provide opportunities for students to develop how to practice argumentation and discourse. The lesson "Classify Properties of Matter" instructs the teacher to lead the class in a group discussion for students to share information from their learning or additional research about 3D printing. Students present facts, ideas, stories, pictures, and diagrams about the history, application, and operations of 3D printing. Students might compile the information into a graphic organizer, poster, or other presentation.
- The materials provide opportunities for students to develop how to practice argumentation and discourse. For example, in lesson "2.10A," the section "Read, Write, Share" states: "Model and Explain how to speak with a partner when there is a disagreement. Model speaking calmly and listening respectfully while a partner explains their ideas."

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 the lesson "TEKS 2.12," students describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem. Students use a rain gauge to measure water in two different bowls, labeled *desert* and *rainforest*, filled with 1 and 3 centimeters of water, respectively, and place sponges of different colors on each bowl, one at a time. Students then verbally record a claim about how rainfall affects the number of plants and animals that can live in an environment. Materials direct students to support their claim with evidence from their investigation and explain their reasoning to connect their claim to their evidence.
- The materials provide criteria for developmentally appropriate arguments to explain a phenomenon or defend a solution to problems using evidence acquired from learning experiences. For example, materials in lesson "TEKS 2.7.A" include a rubric students can use to evaluate an argument. Criteria include whether the claim is supported by evidence and includes scientific ideas as shown: predict what will happen when tops collide; observe, measure, and

record what happens when tops collide; explain the causes for what happens when tops collide; observe, measure, and record what happens when balls and tops collide; explain the causes for what happens when balls and tops collide.

- The materials provide instruction for constructing and presenting a verbal or written argument to problems using evidence acquired from learning experiences. In “Engineer It Part 2,” students complete the check-boxes in the “Patterns Science Theme Organizer” to describe how to test, evaluate, and redesign a device that uses sound to communicate across a distance. Students get in pairs, evaluate, and redesign as needed.
- The materials provide instruction for constructing and presenting a verbal and written argument using evidence acquired from learning experiences. Prompts in the teacher materials support talk moves that spark discussion and elicit student thinking through discourse. In the lesson “Force and Motion: Forces,” students investigate and predict cause-and-effect relationships in science. The teacher explains cause and effect while students use the “Cause and Effect Science Theme Organizer” to help them articulate what happens during the steps of the activity, in which they observe, measure, and compare the causes and effects when objects collide.
- The materials provide opportunities for students to justify explaining 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 answer the “Guiding Question” about the phenomena or problem from the start of the lesson by writing a claim and supporting it with evidence and reasoning from their experiences. In “Matter: Matter Can Change,” Can You Explain It provides the Guiding Question “How does cutting vegetables change their properties?”
- The materials provide instruction for constructing and presenting a verbal and written argument using evidence acquired from learning experiences. For example, students investigate the effects of a ramp's tilt on the motion of a ball. Students measure ramp heights and the distance a ball moves and record their data in their journals. Students then construct their claims. Materials direct students to consider their evidence from the investigation and compare the results with the first part of the activity. The materials then direct the students to construct their reasoning and share it with a partner before writing it in their journals.
- The materials provide opportunities for students to justify explaining phenomena using written and verbal arguments as well as evidence acquired from learning experiences. For example, on Day 3 of “2.13D, Investigate Life Cycles,” students construct a written explanation of how young butterflies differ from adult butterflies and frogs. Students use evidence from their research and data collected to justify their explanations. Students then share their claims, evidence, and reasoning with a partner.

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Indicator 5.2

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

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

Meets | Score 4/4

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

Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context. Materials 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 build on students' thinking. For example, in lesson "TEKS 2.7.A," students explain how objects push on each other and may change shape when they touch or collide. On Day 2, "Explore/Explain," in the section "Elicit Children's Thinking," the materials guide teachers: "Discuss with children what happens when a ball and top collide. Ask: Think about being a spinning top when a ball hits you. What would happen to you? Why would it happen? In other words, what is the cause? Then have children draw and label a picture to explain what happens when a top and a ball collide."
- The materials provide teacher responses to possible students' responses, including how to build on students' thinking. The materials provide an "Exit Ticket" in the lesson "The Sun and Moon." The materials suggest the teacher provide feedback by having students discuss the picture and explain what it shows: "Prompt students to tell how they know it is sunny and hot. If students chose answer choice C, confirm that the sun does provide light, but explain that answer choice C doesn't answer the question. Reread the question with students, eliciting that the question asks why it is hot. Have students recall their investigation with the thermometers. Then have them answer the question. Support for student answers include Why is it hot in this sunny place? B. The sun provides heat."
- The materials provide teachers with possible student responses or exemplars to questions in all lessons (every TEKS) under the "Support for Children's Answers" section. For example, in lesson

"2.8A, All About Sound," the children answer the question "What do you wonder about why the water vibrates?" The materials provide a sample answer: "I wonder if sound makes the water vibrate."

- The materials provide support for teachers to deepen student thinking through questioning. For example, in lesson "2.10A, Changes on Earth's Surfaces," students explore how the Earth's surface changes by erosion. On Day 5, under the "Can You Explain It?" section, the teacher is guided on how to deepen students' learning and support those struggling: "Children should have grown in their depth of knowledge about erosion. If children struggle to answer the question, pose questions such as: What is erosion? How can wind move soil? How can flowing water affect the land?" The materials then provide guidance for supporting students' answers under "Support for Children's Answers" by guiding teachers to tell students to use evidence from their explorations to answer the guiding question "What can move soil and rock particles across Earth's Surface?" and providing an exemplar answer.

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 provide a "Language Development" section that guides the teacher to have students utilize the "Language Development Worksheet." For example, in lesson "2.6A Classify Properties of Matter," the materials provide definitions of the vocabulary words *solid, liquid,* and *texture.* 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 term, model using sentence frames, and have children model to practice using language.
- The materials provide embedded support for the teacher in introducing and scaffolding students' development of scientific vocabulary. In the "Support for Vocabulary" section of the "Resources" lesson, the teacher introduces the word *natural resources* 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 provide embedded support for the teacher in introducing and scaffolding students' development of scientific vocabulary. In the lesson "Animal Needs," under "Apply," the materials state: "As students answer the Can You Explain It? or close out the lesson, encourage them to use the vocabulary they learned in Days 1 to 4. Students should talk about lungs and gills to distinguish how different animals take in air."
- The materials provide teacher guidance on supporting students' use of scientific vocabulary in the context under the "Vocabulary" "Apply" section found in the "Science in Careers" or "People In Engineering" for all TEKS lessons. For example, in lesson "2.9A, The Sun and Moon," the vocabulary words *moon, star*, and *sun* are listed. The materials guide the teacher to have students apply the vocabulary word when they answer the "Can You Explain It?" question. The materials state: "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 6. For example, when they talk about the moon, they might say that light from the sun reflects off the moon."

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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 purpose of the activity is to "engage children in engineering concepts, practices and vocabulary." 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 need to share information during all phases of the process. This includes presenting a solution so that other people can use it."
- The materials provide teacher questions for supporting student discourse and using evidence in constructing written and verbal claims. The teacher uses questions to push students to use evidence to support their claims in both written and spoken discourse. In the "Investigate Life Cycle" lesson, the teacher leads a group discussion about animal change and asks, "What do you wonder about how different animals grow and change during their life cycle?" to support student discourse. In the "Connecting to Community" section, teachers support students to continue the discourse by asking students to research how butterflies respond to changes in habitat and have students write letters to government officials about habitat protections.
- The materials provide teacher supports to prepare for student discourse. In the "Animal Needs" lesson, students view the "Phenomena" video about how animals act and use their parts to meet their needs, and 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 guidance that teachers can use to provide feedback to students while engaging in discourse. The lesson "Earth's Materials" includes support for students' answers. The materials guide the teacher to say: "Answer the Guiding Question: Recall your ideas about the Guiding Question from the start of the lesson. Use what you have explored to answer the question: Where do the things we use daily come from?" The materials include the sample student answer "The things we use daily come from natural resources, such as plants, and resources made by people, such as plastic."
- The materials provide teacher questions for supporting discourse and using evidence in constructing written and verbal claims. For example, lesson "2.9A, The Sun and Moon," Day 1, has a section titled "Children's Questions." This section provides teacher guidance on reminding 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 student-written responses. Materials state that teachers can use the exemplars as a support to help them facilitate children showing their thinking in written form. For example, in lesson "TEKS 2.6.C," students demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties. On Day 4 "Explore/Explain," in the section "Read, Write, Share," materials state: "Children will write a description of how parts

make up a whole in a system and then share the description with a partner. Children can write about any system they choose but may refer to the lesson's images, including buildings, gutters, a wagon, or a swing set." "Support for Children's Answers" states: "Write a description about how parts make up a whole in a system." A sample answer is "A system is a group of parts that work together as a whole. The parts of a system must all work, or the system breaks down. Choosing the right materials for the parts helps the system work well."

- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. The "Compare Temperature, Size, and Quantity" lesson provides exemplars of students' verbal responses for sharing their thinking in the "Claims, Evidence, and Reasoning" section. A sample student response is "My claim is that I can classify matter in different ways by temperature, size, and quantity. My evidence is that objects in the activity had different sizes, quantities, and temperatures. My reasoning is that matter has more than one property, allowing it to be classified differently."
- The materials provide teacher support for facilitating the sharing of students' finding solutions. The lesson "Living Things and Their Environments" guides the teacher: "Lead a Class Discussion to have students discuss their findings. Allow students to share any connections they can make between the number of sponges they used for each bowl and the number of plants and animals that can live in that environment. Students should understand that plants and animals need water to live, and more living things can live in a place with more rainfall." The materials provide teacher support for student answers: "Some parts of an environment are rainfall, plants, and animals. If one part changes, how could that change other parts of the environment? Sample answer: If one part changes, more plants or animals or fewer plants or animals might live in that environment."
- The materials provide examples of verbal responses, as seen in the "Support for Children's Answers" in every lesson. For example, lesson "2.13, Structures and Behaviors of Living Things," Day 2 "Explore," in the "Support Children's Answers," there is a sample answer to the question "How do its parts help it find food? How do its parts help it take in food?" The sample answers listed in the materials are "Its eyes help it find food. Its wings help it get to food quickly. Its sharp talons help it grab food. Its beak helps it eat food."

HMH Into Science Texas Grade 2

Indicator 6.1

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

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

Meets | Score 2/2

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

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats. Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment. Materials include assessments 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 pre-assessments that can be assigned online to evaluate mastery of prerequisite knowledge and address gaps before instruction. Additionally, materials provide “Unit Readiness Checks” that may be assigned online and the “Building on Prior Knowledge” found at the beginning of every lesson in the Teacher's Guide.
- The materials include formative assessments in various formats to measure student learning and determine the next steps for instruction. For example, materials in each TEKS lesson include a section on “Explore/Explain” days called “Exit Ticket,” used as a daily formative assessment. It comes in different formats, as shown in the lesson “TEKS 2.10.A,” Day 3, Exit Ticket: “What is the effect of wind on Earth's surface? The answer options are: Wind (moves/does not move) soil across Earth's surface. Wind (moves/does not move) gravel or rock particles across Earth's surface.”
- The materials include summative assessments in a variety of formats. The lessons provide assessment planning, which includes summative assessment planning. Each lesson offers a TEKS Test as a Summative Assessment. The materials provide “Wrap Up Resources,” including the

TEKS Tests, such as the test in the lesson “Earth's Surface and Weather: Severe Weather.” The quiz can be provided to students as a hard copy or assigned digitally.

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 which student expectations are assessed. The materials provide a detailed “Scope and Sequence” with the expected TEKS for second-grade 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.
- The materials assess all student expectations by grade level. The teacher's guide includes detailed TEKS-based lesson plans that outline how the materials can help teach specific concepts and skills, address specific students' expectations, and provide guidance on assessing student learning. In the Teacher's Guide, the “TEKS 2.6A, Classify Properties of Matter” lesson plan outlines how the teacher introduces new vocabulary, conducts a hands-on activity, leads group discussions, addresses student expectations, and provides guidance through an assessment.
- 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 quiz and test and an answer key for each assessment.

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

- The materials include assessments that require students to integrate scientific knowledge with the Science and Engineering Practices (SEPs) and Recurrent Themes and Concepts (RTCs) appropriate to the student expectation assessed, as established in the section “Build for Outcomes” at the beginning of the Teacher Guide. The section provides guidance: "Because the SEPs and RTCs are new to the TEKS, an additional “Skills and Themes Bank” provides more options for assessing TEKS 1-5. You can customize to either craft assessments using only these Skills Bank items or adjust the other assessments to include the Skills Bank items you select.”
- The materials include assessments integrating scientific knowledge with the Science and Engineering Practices (SEPs) and Recurrent Themes and Concepts (RTCs). The materials state that assessments often intertwine the content of TEKS (TEKS 6–13) with the 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 that integrate scientific knowledge and SEPs. For example, in the Quiz for lesson “2.12A, Living Things and Their Environments”, question 3 asks students to identify factors that may cause a plant to stop growing. This question tests TEKS 2.12A and RTC 2.5G.

- The materials include assessments that integrate scientific knowledge with SEPs and RTCs. For example, the test for lesson “2.10(ABC),” question 4: "Hurricanes are most likely to form over an ocean and affect land near an ocean. Which sentences explain what causes this? Circle two correct answers." This question tests TEKS 2.10C “Severe Weather” and RTCs 2.5B to investigate and predicate cause and effect relationships in science.

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 2.12.A.” Students describe that an environment with more rainfall can support a larger number of plants and animals versus an environment with little rainfall. On Day 2, students use a rain gauge to measure water in two different bowls, labeled *desert* and *rainforest*, and filled with 1 and 3 centimeters of water, respectively, and place the sponges of different colors on each bowl one at a time, and talk with a partner about what they observe. Students apply their knowledge of how rainfall can support more plants and animals versus an environment with little rainfall within an assessment by comparing three scenarios described in a sentence and responding to which one is correct according to what helps plants and animals meet their needs.
- The materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. The materials state assessments use a scaffolded approach to help teachers identify how students progress in applying knowledge to solve problems and explain phenomena. In the “Objects In the Sky” lesson, students identify patterns to describe phenomena or design solutions. Students will observe objects in the sky using tools such as binoculars or a telescope and compare how objects can appear differently using a tool rather than an unaided eye.
- The materials include assessments that require students to apply what they have learned to a new phenomenon or problem. For example, in a Grade 2 Test on “2.10,” students are given the context that their class will investigate a creek with flowing water near their school. The students must apply what they know about flowing water to choose the correct two statements about how the changes in the Earth's surface can be caused by water moving rocks and soil.

HMH Into Science Texas Grade 2

Indicator 6.2

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

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

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include 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, "TEKS 2.7.A," Day 3, "Explore/Explain" materials include a formative assessment Exit Ticket evaluating students with the question, "What is happening to the dough?" The "Support for Children's Answers" section provides a sample answer: "The hands strongly touch the dough and change its shape."
- 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 "Observe an Ant Farm." 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."
- The materials include information that guides teachers in evaluating student responses. In the "Model a Butterfly Life Cycle" lesson under the "Support for Children's Answers" section, the teacher asks, "Why is it important to follow all your classroom indoor safety practices?" The guide gives an example response: "Following safety practices helps to keep my classmates and me safe." The Exit Ticket provides an acceptable student response and differentiated extra support if needed.

- The materials include information that guides teachers in evaluating student responses. At the end of each lesson, an Exit Ticket formative assessment provides sections titled “Support For Children's Answers.” Teachers prompt with sample answers to expect from students. Each lesson provides a section titled “I Wonder,” prompting teachers to ask, and the section “Support For Children's Answers.” The lesson “Be An Engineer!” allows students to explain how engineers solve problems. Under the “Make” portion, there is the “Support Children's Answers” section posing the question, “What solution do you think will best solve the problem in the picture?”
- The Teacher’s Guide includes examples of acceptable responses for evaluating student responses. It suggests teachers’ actions to address student learning gaps in lessons and units as follow-up suggestions after formative assessments. For example, in the lesson “2.13A, Plant Structures,” Day 3 of the “Explore/Explain” section, the Exit Ticket states: "Match the plant parts with how they help plants." The suggested possible response is, "Roots take in water from the soil, stems move water to leaves, leaves make food for the plant, and fruits and seeds help make new plants." The Differentiation: Extra Support suggests that children use the graphic organizer (“Structure and Function Science Themes”) to help organize the new information.

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 that explains 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 support teachers’ analysis of assessment data. The assessment reports provided to teachers are customizable. Teachers can customize the type of report to run and the date ranges to cover. The customizable reports cover whole class or individual students, general averages, and individual TEKS. The reports provide a range of opportunities for teachers to analyze assessment data.
- 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.

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 (orange for On-Level, red for Below-level, and green for Above-level) to differentiate science instruction and easily group students according to assessment results, providing a report that suggests groups students in clusters based on skill mastery of TEKS.
- The information gathered from the assessment tools helps teachers when planning core instruction. The lesson “Matter: Combine Objects” provides intervention under the “Can You Explain It?” section. The materials state, “Ask how you can use parts to make new objects.” The materials suggest that students revisit the video and pose additional questions if they struggle. The lesson suggests the teacher review the students' questions from the beginning of the lesson which remained unanswered.

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 use the reader for independent reading or small group/whole group lesson, leading group discussions to activate 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 K-2). The guidance provided briefly suggests activities or ways the teacher may respond to the content, misconceptions, and students struggling to make sense of the concept.
- 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. In the Model, a Stream part 3 lesson under the Extension Resources for students includes FUNomenal readers, You Solve it mapping water and preventing wind activity, and a make a windbreak project for review and skill practice.
- The materials provide various student resources for teachers to respond to performance data. Teachers have access to a variety of resources and activities. Each lesson and “Ed Online Pocket Lab” provide additional resources, such as in the lesson Sound: All About Sound. The Pocket Lab provides interactive student lessons, a print student edition, and a hands-on activity downloadable worksheet.
- The materials include a variety of resources teachers can use for direct instruction, 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.

HMH Into Science Texas Grade 2

Indicator 6.3

Assessments are clear and easy to understand.

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

Meets | Score 2/2

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

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 contain items for the grade level that are scientifically accurate. For example, materials for “2.6A, Properties of Matter” and the formative assessment (exit tickets and discussion questions) utilize the grade-appropriate vocabulary: solid and liquid when describing matter. In the lesson “2.6B,” the formative assessments (exit tickets, discussion questions) use the terms solid and liquid when referring to physical properties.
- The formative and summative assessments include assessment items that align with taught objectives and present grade-level content and concepts, science, and engineering practices in a scientifically accurate way. For example, in the lesson “TEKS 2.8.A,” a formative assessment after an experiment on sound using a tuning fork to demonstrate that vibrations can be caused by sound, accurately directs the teacher to ask students, "Jenn wants to explain to her friends that sound makes vibrations. Which tests can she do to investigate this?", using vibrations instead of making her shiver.
- The assessments contain items for the grade level that are scientifically accurate with exit tickets/formative assessments. The “TEKS 2.12.C” assessment over “Plants Depend on Animals, Wind, and Water” is scientifically accurate, avoids bias, and is error-free. The TEKS requires students to explain and demonstrate how some plants depend on other living things, wind or water, for pollination and to move their seeds around. The multiple-choice questions ask which actions help pollinate and which help move seeds and have students write the letter of each answer in the correct box.
- The assessments contain items for the grade level that are scientifically accurate with exit tickets/formative assessments. The “TEKS 2.13” assessment over “Structures and Behaviors of Living Things” is scientifically accurate, avoids bias, and is error-free. The TEKS requires students

to know that organisms have structures and undergo processes that help them interact and survive within their environments. One question asks students to select the correct life cycle of a butterfly. The assessment also provides an image of a plant, and the student must identify each plant's structure.

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

- The assessment tools use clear pictures. For example, assessment items in a TEKS Quiz titled “Observe Objects in the Sky” include photos of a pair of glasses, a magnifying glass, and a telescope.
- The assessment tools use clear pictures and graphics. The lesson “TEKS 2.10, Earth Surface and Weather” quiz asks students to label pictures changed by wind or water. The graphics are clear images of a waterfall, dunes, and a river dune and are easily comparable.
- The assessments contain pictures and graphics that are developmentally appropriate. In the weather assessment, the question asks the average temperature in a city for three months. The three graph options have clear titles and labels for January, February, and March with legible bar graphs.
- The pictures and graphics utilized in the assessments are developmentally appropriate. For example, assessment items contain simple pictures familiar from the lessons and activities, such as pulling a kite, kicking a soccer ball, ice cream melting, ice cubes, etc.).

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'll explore the different types of assessments in Into Science."
- 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 provide guidance on the different forms, such as an editable, printable format or administering and auto-graded online on Ed. "When administered online on Ed, reporting capabilities will be available to provide data by student or by class."
- The materials provide clear guidance for teachers to consistently and accurately administer assessment tools. The materials provide a detailed assessment guide in the “Assessment” tab. The “Assessment Guide” supports the teacher in several ways and is easily accessible. The materials provide teacher guidance in understanding what types of assessments 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 ways 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," and"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 sizes range from small to huge to assist with visual impairment accommodations. Using a text-to-speech software feature, students can 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.

HMH Into Science Texas Grade 2

Indicator 7.1

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include teacher guidance for scaffolding instruction and differentiating activities for students who still need to achieve mastery. Lessons include recommendations for downward scaffolds to support students in successful science learning and knowledge building. For example, Day 2 of the “Sound” lesson consists of an “Explore/Explain” activity that guides teachers to have students think about their investigation and think about these questions: "How does it show that sound is made by vibrating matter? How does it show that vibrations can cause sound? Explain." The “Teacher Guide” guides “Differentiation/Reteaching Support” through additional materials in the “Emergent Bilingual Support” section of the same lesson. The materials suggest using a ScienceSaurus page to show students grade-level appropriate, vivid images and detailed explanations. The materials also include a “Supplemental Lesson” called “What is Energy?”
- The materials provide additional resources for targeted instruction and differentiation to support students who still need to achieve mastery. The “All About Sound” lesson includes a scientific text called "Let's Explore Making Sounds" at three different reading lexile levels for independent or guided small-group instruction. The materials include a mini-lesson to reteach, reinforce, and supplement sound content through nonfiction text.
- Each “Lesson Planning” section includes a “Differentiation/Reteaching Support” section that provides additional support for reteaching the concept. The materials are linked to Ed Online and provide links to the supporting materials for differentiation and reteaching. For example, the guidance suggests teachers place students in small groups or pairs if they need additional support in planning their investigation. The materials provide questions teachers can use to

support students, such as, “What are you trying to find out? What parts are going to change during your investigation?” and, “What materials are you going to use?”

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, materials provide sentence stems for using scientific vocabulary in the discussion, as shown in lesson TEKS 2.12.A, Day 2, “Claims, Evidence, and Reasoning,” "My claim is that plants and animals… My evidence is…. In the rainforest model, my reasoning is that …"
    - For example, the materials include enrichment activities that account for learner variability. Lessons include a phenomenon video for extending learning for students at all levels and guiding questions based on the video content, such as, "Why can you see stars?"
    - For example, on Day 2 of the “Earth's Surface and Weather” lesson, students participate in a “Read, Write, Share” activity where they respond to the prompt to reread their measurements from a model and share with a partner. Students discuss why the measurements are different and how they could solve the problem of having different measurements. Students write about their ideas after discussion. The same lesson includes a FUNomenal Reader, "The Key to the Past," and a list of materials for Language Support, including a “Language X-Ray,” a “Language Development Worksheet,” a “Vocabulary Anchor Chart,” and a “Writing Graphic Organizer.”
    - For example, in the “Matter Can Change” lesson, the materials include a “Cause and Effect” Interactive activity where students observe patterns generated by causing change to matter through heating and cooling. They support a claim using evidence from their observations, stating that some changes can be reversed while others cannot.
- The materials provide enrichment activities that account for learner variability. The lessons include guidance to regularly engage in tasks with a writing prompt for responding so students can apply their science knowledge in writing. In the “Getting Food” lesson, under the “Read, Write, Share” section, the students write questions they would ask Jane Goodall in an interview-style report and share with a partner.
- The “Lesson At a Glance” in the Teacher’s Guide provides extension options and suggests that the teacher can use none, some, or all. The lesson “Plants Depend on Animals, Wind, and Water” provides one day of ELPS mini-lessons and two days of extension for “Elaborate.” The “Elaborate” extensions use the FUNomenal Reader: “A Dog Is a Plant's Best Friend.”

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

- 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 the lesson “2.7B, Changes in Motion,” the materials provide a section called "Differentiation: Challenge" to guide teachers on providing an enrichment challenge where students plan and conduct an investigation to test the strength of different magnets, such as how many objects a magnet can pull.
- The lessons include recommendations for just-in-time scaffolds to develop productive learning perseverance. The lessons have questions for teachers to support students when they struggle to participate in a self-engaged, demanding task. For example, in the “Animal Needs” lesson, the

"Support for Children" section guides the teacher to ask, "What do you wonder about how animals act and use their parts to get what they need?" It includes the possible student sample answer, "I wonder how the lion knows how to find water?"

- 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 content at the moment of need. For example, in the "Model Moving Pollen" lesson, the "Differentiation Challenge" section guides the teacher to extend the lesson by asking students to use a cotton ball as a bee and chalk powder for the flower to have students build a model to show in explicit detail how bees move pollen.
- The "Structures and Behaviors of Living Things" lesson provides "Differentiation: Extra Support." The materials include an activity for struggling students having trouble with the life cycle of a butterfly and allowing them to act it out. Students can label pictures of each cycle and label it while acting that cycle out on stage. Students can take turns and act out different cycles to gain understanding.

HMH Into Science Texas Grade 2

Indicator 7.2

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

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

Meets | Score 2/2

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

The 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, the materials suggest small group or partner discussions as shown in the lesson “TEKS 2.8.C,” Day 4, “Read, Write, Share”: “Reread the steps you followed to build and test your device. Think about what happened at each step. Next, write to evaluate your device. How well did it work? How do you know? Write your ideas on a separate sheet of paper. Then, share your evaluation with your partner." The “Be An Engineer!” section also provides teacher guidance for helping students understand and explain scientific practices. The materials suggest teachers can use the information in several ways, including: "Introducing concepts, practices, and vocabulary early in the school year, preparing children before an “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 “Severe Weather” lesson, students use a notebook and the internet to research and collect data on severe weather effects and the problems they cause. For example, the “You Solve It! Simulations” include exploration with concrete and hands-on materials at the course's

rigor level. In the “Mapping Water: You Solve It!” activity, students use the map tools to learn more about the earth's water, including oceans, rivers, and lakes.

- The materials provide a wonder opportunity on Day 1: “Engage” (TEKS 2.6.C) in the lesson “Combine Objects.” Materials provide students with the prompt: “What do you wonder about how small parts can be put together to make new objects?” The materials give the teacher a sample answer: “I wonder how many different things I can make from the same small parts.”
- The materials utilize a variety of developmentally appropriate instruction to keep students engaged while building their mastery of the content. Every 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. The lesson then moves to the application where "People in Science" have had an impact on the world and elicit students' thinking in the "Can You Explain It?” section before finally being tested to see if the students have mastered the concept(s).
- The materials include various opportunities for students to explore and express their thinking and understanding. For example, every lesson includes opportunities for students to record their observations, respond to questions including “Claim, Evidence, and Reasoning” questions, a "Read, Write, Share" section, and multiple opportunities to discuss with a partner, team, or class.

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

- The materials guide teachers on when to use specific grouping structures based on the needs of students. For example, in the lesson “TEKS 2.8.B,” section “Can You Explain it?” students must answer a question using evidence from the videos, hands-on activities, and explorations. "Children should have grown in their depth of knowledge about sound levels.” If children struggle to answer the question, pose additional questions such as: “What are different levels of volume?” and “What are different levels of pitch?”
- The materials guide teachers on when to use specific grouping structures based on the needs of students. The lessons note that if students struggle with the exit ticket, the teacher should address the student's misconceptions. In the “Melting and Freezing” lesson, the teacher guides students with misconceptions on what causes objects to melt and supports their answers.
- The digital “Student Interactive Lessons” can be completed independently, in small groups, or as part of whole-group instruction. Teachers can teach lessons directly from the presentations in all settings and support hybrid and remote learning. For example, the lesson on “Matter,” specifically “Classify Properties of Matter,” allows the teacher to use the whole class during the “Language Development” portion. The teacher completes a vocabulary anchor chart as a whole class to support the lesson.
- The materials encourage flexible grouping throughout all lessons. For example, in the lesson “2.7A, Forces,” the materials begin with a class discussion on activating their prior knowledge by watching a video and recording what they wonder about how pushes can change objects on Day 1. On Day 2, “Explore/Explain,” materials recommend students work in pairs or groups (if space is limited). Day 3 includes the "Read, Write, Share" section: "Children will reread their observations, write about how objects can change shape when they touch or collide, and share their writing with a partner."
- The materials support the teacher in utilizing specific groupings based on the students' needs. For example, in the lesson “2.7A, Forces,” the preparation tips for Day 2 state: "Designate a work area on the floor for each pair or group. If space is limited, assign more children to each group or consider having some groups work in a hallway or other available floor space."

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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!” that identifies ways teachers can include some modeling of needed scientific practices, such as "Introducing concepts, practices, and vocabulary early in the school year, preparing children before an “Engineer It” Hands-On-Activity, a reteaching resource for children who need extra support after an “Engineer It” Hands-On-Activity.”
- The materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation. 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 the lesson “2.10A, Changes on Earth's Surface,” Day 2, “Explore Model a Stream” Part 1, after students have completed the explore activity, they are asked to reread their data from different spots in their model and "Discuss them with a partner." Then, they are asked to summarize their sand, soil, and gravel measurements in the stream table (independent).
- 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. In the “Changes in Speed” lesson under the “Claims, Evidence, and Reasoning” section, students make a claim about how objects can change shape when they touch or collide and support their independent claim with evidence and reasoning.
- The materials guide teachers with suggested grouping for lessons. For example, in Lesson “2.7A, Forces.” Day 3, “Explore/Explain,” the materials state: "Manage small-group work by monitoring that children write complete answers about the objects in the investigations. Whether they draw and label pictures or write a few sentences, they should communicate how objects can change shape when objects touch and objects collide.”

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

- The materials represent diverse communities using images and information that are respectful and inclusive. 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 “Sanding” lesson, students click through images and read about Dr. Mei-Yin Chou, a Taiwanese physicist, to learn about her work in matter and energy. In the “Rubber Band Sounds” lesson, students use an image gallery to explore how Jose Hernandez-Rebollar, a Mexican inventor, made an electronic glove invention, including what it does and who he helped.
- The materials represent diverse communities using images and information that are respectful and inclusive. The images in the material reflect the diversity of school communities and match the content. Characteristics vary in images to include race and ethnicity, skin tone, gender identity and expression, age, disability status, body size and shape, and hair texture. The “Ramps

and Motions," Day 2, Interactive lesson, shows students an image of various men, women, and children of several ethnicities at the start of a box car race.

- The materials provide diversity in the images of individuals by representing many cultures of the communities. The images and names of individuals are real-world and real-life representations. The authors use both male and female names and images and various ethnicities. In the "Sound" lesson, an African-American man is represented as a sound engineer. The lesson has students discuss how his career relates to sound.
- The materials utilize real-life and diverse individuals throughout the lessons. On page 119 of the "Sound" lesson, there is an authentic Mariachi Band photo. The band represents the culture and ethnicity of the individuals for students to see a real-life representation.
- The materials represent a diversity of students throughout the year. All of the pictures showing students doing science include images representing children from across the world, many ethnicities, nationalities, genders, and children with disabilities.

HMH Into Science Texas Grade 2

Indicator 7.3

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include 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 2.11.B, Lesson at a Glance," section "Extensions," Day 1, "ELPS English Language Development" Mini-Lesson,
    - BEGINNING: Provide a word bank: *size*, *shape*, *kind*. Help children complete the frames and lead in echo-reading the correctly completed frames. Encourage them to seek clarification of the words they don't understand.
    - INTERMEDIATE: Have children work in small groups and use the frames to respond to the questions. Have them monitor their understanding and discuss words they don't understand. Provide input as needed.
    - ADVANCED: Have children respond to questions and discuss their answers in small groups.
    - ADVANCED HIGH: Have children respond to questions and help others struggling with the task."
- The teacher guide embeds scaffolds for emergent bilingual (EB) students into lessons, such as visuals and gestures, as shown in the lesson "TEKS 2.13.A, 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 ELPS mini lessons provide sentence stems to

support speaking and writing with multiple complexity levels to reflect four levels of English language proficiency. The materials offer “Sound Waves” ELPS mini-lesson scaffolds for beginning, intermediate, advanced, and advanced high language proficiencies. In the beginning section, the teacher helps students use frames to respond to questions collaboratively and bridge communication gaps nonverbally, using sketches, pointing to the frame and actions, and echo-reading the completed frames. In the intermediate section, students use oral communication to collaborate as they share their notes and use the frames. The teacher monitors, providing clarification as needed. In the advanced section, students use oral communication to collaborate as they respond to the question using their notes and discuss their work in small groups. In the advanced high section, students use oral communication to collaborate as they respond to the question. The teacher encourages them to use notes, vocabulary, and references to information in this lesson.

- The ELPS Mini Lessons provide differentiated strategies for each level of language proficiency as defined by the ELPS. The ELPS mini-lesson, “Gravity Pulls Objects,” begins with a connection to prior knowledge. The lesson breaks down the “Clarify Ideas” 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. The authors break scaffolding into the following levels: beginning, intermediate, advanced, and advanced high. Strategy and scaffolding continue through the “Collaborate” and “Explain/Elaborate” sections. The lesson ends with a writing opportunity that guides beginning/intermediate and advanced/advanced high.
- The materials guide linguistic accommodations for all levels of learners. For example, in the “Lesson at a Glance” for the lesson “2.9A, The Sun and Moon,” under the “Language Support” section, the materials guide the teacher to use extension activities such as an ELPS mini-lesson (2.4.1). In the mini-lesson, 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 teach multiple reading strategies, such as “Take Notes,” “Restate Ideas,” and “Summarizing.” 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, as shown in the lesson “TEKS 2.11.A”: "Have children express their knowledge in ways that are accessible to them, such as writing a term in another language they know, then looking it up in a bilingual dictionary to confirm meaning.”
- The materials encourage strategic use of students’ first language for English's linguistic, affective, cognitive, and academic development. In the “Changes on Earth” 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 for linguistic, affective, cognitive, and academic development in English. The materials include resources for translation or support in first languages. In the “Plants and their Parts” ELPS lesson, the teacher provides

students with the “Vocabulary” graphic organizer to complete while reviewing the passage on the last page of this lesson and uses the organizer to help children learn the academic and basic language.

- Each lesson’s “Planning Page” in the Teacher’s Guide includes guidance on implementing best practices and consistent routines and supports for emergent bilinguals before any instruction, including using their first language as a scaffold to develop scientific discourse in English.
- The materials include a glossary with cognates or second-language definitions that the teacher can assign to the students 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.

HMH Into Science Texas Grade 2

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

Meets | Score 2/2

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

Materials provide information to be shared with students and caregivers about the 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, sound, objects in the sky, Earth’s surface and weather, Earth materials, living things and environments, and structures and behaviors of living things." 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.

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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, in the letters to families, the materials include ways families can prepare students for the TEKS lesson by providing an At-Home Activity and engaging them by asking questions about it, as shown on the Grade 2 materials online, “Discover” tab, “Extra Resources,” “TEKS 2.6, Matters and its Properties: Home Letter”: "Dear Parent or Guardian, your child is now beginning “TEKS 2.6, Matter and Its Properties. “Read more to discover what your child is exploring!" At-Home Activity. To prepare your child for this lesson, try this short activity: Build an object using plastic or wooden blocks. Take apart the object. Use only the blocks from that object to build something new. Engage your child by asking these questions: How could you use the same blocks to build a new object? Do you think you could make a third object with the blocks? What claim can you make about building objects from a set of pieces?"
- 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 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 students' 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. Teacher guidance materials templates for sharing and explaining how to support student learning, as shown on the product website, “Teacher's Corner” tab, “Program Support,” “Into Science,” “Grade K-12, 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 for 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."

HMH Into Science Texas Grade 2

Indicator 8.1

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials include a cohesive scope and sequence that outlines the lessons in the Teacher's Guide. The “Scope and Sequence” aligns the Texas Essential Knowledge and Skills (TEKS) for the appropriate grade and breaks up each section by the content. Content sections include “Physical Science,” “Earth and Space Science,” and “Life Science.”
- The pacing guide includes a side-by-side document showing the TEKS, a concise skill description, the days and minutes required for each lesson, and three different pathways to teach the TEKS. The pacing guide contains the following categories: “TEKS Streamlined Path,” “TEKS Emergent Bilinguals Path,” and “TEKS Extended Path.” These categories allow for flexibility based on the number of days science is taught within the district. This resource plans the year at a glance.
- Each lesson in the Teacher’s Guide includes the “Lesson at a Glance” and the “Lesson Planning” pages, which explain the pacing within a lesson.
- The materials provide a detailed scope and sequence for K-8, showing the vertical and horizontal alignment of the TEKS throughout the school year in the Teacher’s Guide. The “Scope and Sequence” includes when the SEPs and RTCs are taught within each TEKS across all grade bands.

HMH Into Science Texas Grade 2

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

- The material provides opportunities for students to make connections with all TEKS, often intertwining the content TEKS with Science and Engineering Practices (SEPs), and Recurring Themes and Concepts (RTCs).
- Students use “Science Theme Organizers” to scaffold the use of “Recurring Themes and Concepts” of the TEKS to support sensemaking about phenomena within and across lessons. Each lesson begins with a listed “Purpose”: “Through the Scientific and Engineering Practices and Recurring Themes and Concepts, students will engage with engineering within multiple lessons.”
- The materials provide teacher guidance within each lesson assessment to help students make connections between units over the course of the year. The program’s formative and summative assessment categories provide opportunities for students to demonstrate proficiency with all 13 TEKS and to prepare for the types and complexities of items they will see on the redesigned STAAR.

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

- The grade 2 science materials provide review and practice of knowledge and skills with the TEKS, spiraled from grade 1 to grade 2 as well as throughout the year to support mastery.
- In grade 2, the materials include teacher guidance on how to activate prior knowledge using concepts learned in the previous year, as seen in the "What Do You Already Know?" section in 2.6A “Classify Properties of Matter” in the Teacher's Guide. In this section, the guide explains to teachers how to activate prior knowledge by connecting to concepts learned in K and 1 and classify matter by observable properties, including shape, color, and texture. In grade 2, the materials include teacher guidance on how to activate prior knowledge using concepts learned in the previous year, as seen in the "What Do You Already Know?" section in 2.13A “Plant Structures” in the Teacher's Guide. In this section, the guide explains to teachers how to activate prior knowledge utilizing an interactive image of a plant. The students are to click on the image hotspots to identify the parts of a plant and their functions previously learned in K and 1.

HMH Into Science Texas Grade 2

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

Meets | Score 2/2

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

The 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.

- Teacher guidance for using the materials is available in the “How To Use This Program” section. This section also includes a detailed list of what the teacher can find throughout the curriculum.
- The materials include overview documents to support teachers in understanding how to use all materials and resources, as seen in the “Overview Video” found 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” found 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 “Forces” lesson includes detailed learning objectives, materials needed, and preparation tips per day.

- The materials explain the pacing of lessons and a list of key components for each lesson. The materials list the “Key Learning Activities” 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 they focus on one content TEKS, which is found in the “Lesson At A Glance” with included point-of-use details. The material explains the teacher has flexibility due to a TEKS-based organization. The material indicates 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 guide the teacher through planning for differentiation with a detailed lesson plan. Each lesson has a “Planning for Differentiation” session, and there is a part for “Language Support,” “Emergent Bilinguals Support Strategy,” and “Differentiation/Reteaching Support.” The materials provide opportunities for research through the “Claims, Evidence, and Reasoning” section. 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 context of the grade level.

- The “TEKS Correlation,” found on the “Teacher's Dashboard,” details where each of the Processing Standards or TEKS can be found within the materials. For example ,2.1Bi (use scientific practices to plan simple descriptive investigations) can be found in the narrative for TEKS Lesson 2.7B, Day 4, and again in the activity for TEKS 2.7B “Quiz.”
- The materials offer teacher guidance for each lesson. For example, the lesson “Living Things and Their Environment,” gives the TEKS used and the “Recurring Themes and Concepts,” then breaks down the “Lesson Objective.” The lesson guides the teacher by providing a guiding question, vocabulary, and language development.
- 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, teacher guidance in the lesson for 2.6A, “Classify Matter,” recommends that on Day 3 students “Do Math” by counting the objects in each group and then comparing the number of objects.
- Each lesson in the “Evaluate” section provides an “Item Analysis Chart” under the “TEKS Test” title, which shows the specific standards covered in each assessment question to assist in monitoring student progress. “Language X-Ray” supports vocabulary and language acquisition for Emergent Bilinguals and all learners. “Language Development Worksheets” and “Vocabulary Anchor Charts” help students internalize each lesson's new words by organizing academic vocabulary and connecting it to prior learning. Under the section “Built to Support All,” an easy-to-use suite of additional supports helps you meet all learners where they are and scaffold them for success.
- 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.” In the Teacher's Guide, a lesson on “Matter and Change” has a labeled section called “Cross-Curricular Connections.” Day 5 of this section states students will write Dr. Mei-Yin Chou to ask questions

about her work, and the teacher will review parts of a letter, including greeting, closing, and signature.

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

- The grade 2 materials include an appendix with a comprehensive list of all equipment and supplies needed to support students and teachers during investigations. The HMH home page includes a comprehensive material list for grade 2. Materials include hand lenses for TEKS Lesson 2.12.C, goggles for TEKS Lessons 2.6.B, 2.10.A, and 2.12.C, trays for TEKS Lesson 2.7.A, heat-resistant gloves for TEKS Lesson 2.6.B, hot plates for TEKS Lesson 2.6.B, straws for TEKS Lessons 2.10.A and 2.13.A, magnets for TEKS Lesson 2.7.B, blocks for TEKS Lessons 2.6.B and 2.7.A, tuning forks for TEKS Lesson 2.8.A, and flashlights for TEKS Lessons 2.6.A and 2.9.A.
- The materials include a comprehensive list of all equipment and supplies needed to support instructional activities, as seen in the “Supporting Materials” link on the “Dashboard.”
- The materials provide the teacher with a detailed list of the materials and supplies needed that correlate with lessons and TEKS for the entire year. The list is called “Hands-On Lab Materials List” and is a separate component within the materials. The list is broken down by the item, how many are needed, the activity, and the TEKS.
- Each lesson includes a list of materials needed for the lesson and the activity. The lesson “Resources” suggests the lesson will need old magazines, scissors, tape or glue, a poster board, and crayons or markers. In addition to the list, the lesson provides preparation tips.

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

- The Teacher's Guide includes a section on “Safety in Science Grades K-5,” which 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.” For example, materials provide checklists of grade-appropriate protective personal equipment (PPE) for lab investigations.
- Materials provide teacher guidance for safety practices and grade 2 appropriate use of safety equipment during investigations, in accordance with Texas Education Agency Science Safety Standards. Materials provide student guidance for safety practices and grade 2 appropriate use of safety equipment during investigations. Within the “Discover” tab of “HMH Resources,” “The Sun and Moon,” Day 3, the “Hands-on Activities Safety” slide states to be gentle with thermometers; “If they break or crack, tell your teacher.”
- “Science and Engineering Safety 101” contains information that covers the classroom, laboratory, and field. The materials state that concern for safety must begin before any activity in the classroom, laboratory, field, or engineering site and before students enter these areas. The information is for the teacher to use to ensure safety in all aspects. In the lesson on “Earth Materials” 2.11A, Day 2, children discuss the safety practices they follow when they use or carry scissors.
- The materials provide guidance for the student 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 printed Student Edition lessons for 2.11.A, “Earth Materials,” the “Safety” section states, “Be careful when working with scissors. Scissors can be sharp.”

HMH Into Science Texas Grade 2

Indicator 8.3

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

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

Meets | Score 2/2

The materials 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.

- At the beginning of each lesson, the number of days is noted, followed by a lesson plan pacing summary. The lesson plan pacing summary details each part of the lesson by minute and day. For example: “Lesson Map, Time: 1 day = 30 minutes, Engage Day 1, Explore and Explain Day 2, Explore and Explain Day 3, Explore and Explain Day 4, Evaluate Day 5.” One extension option for a lesson comparing light and heat allows the teacher to challenge students to predict which areas of the room are warmest and coldest.
- The materials include support for specific scheduling considerations, including labs and field investigations, as seen in the “Pacing Guide.” For example, lessons for TEKS 2.6 are broken into three different pacing guides: “TEKS Streamlined Path” for 129 30-minute days, “TEKS Emergent Bilinguals Path” for 151 30-minute days, and “TEKS Extended Path” for 170 30-minute Days. Under TEKS Streamlined Path, the lesson will take 5 days for a total of 150 minutes and one day for 30 minutes for Review and Quiz Assessment.
- The materials provide a “Unit Overview” stating the number of days required for each section/day of the lesson, as seen in the Teacher's Guide Table of Contents. For example, in grade 2, the Table of Contents states the unit about “Matter of Change” will take six days (Day 1: Engage, Day 2-4: Explore/Explain, Day 5: Elaborate, and Day 6: Evaluate).

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 that includes units, chapters, and lessons that can't be rearranged. 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.

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- The pacing guide offers options for adjusting the time spent on particular units without disrupting the sequence of content. Due to the SEPs and RTCs being new to the TEKS, an additional “Skills Bank” option within assessments provides more options for assessing TEKS 1–5. Teachers can customize to either craft assessments using only these “Skills Bank” items or adjust the other assessments to include the Skills Bank items the teacher selects. The “Streamlined” TEKS pathway for the “Earth and Space” unit allows for 43 days and 1290 minutes, and the “Extended” TEKS pathway allows for 54 days and 1620 minutes.
- The skills tracking section supports teachers in identifying the developmental progression of content and skills. For example, on Day 5, “Evaluate,” “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 materials include units, lessons, and activities for a full year of instruction. The “Pacing Guide” maps out the school year into three possible paths, including a “Streamlined” path, an “Emergent Bilingual Path,” and an “Extended” path. The material provides guidance for adjusting to local time and scheduling constraints. The pacing guide for grade 2 is divided into three pathway options; each is color coded and divided into days and minutes for a year-long plan.
- 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.
- 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 instance: TEKS 2.10.A, Planning, Lesson at a Glance, Time: 6 days, (30 minutes per day), EXTENSIONS: Choose none, some or all of the following, 1 DAY: Elaborate, FUNomenal Reader: The Key to the Past, 3 DAYS: Elaborate, You Solve It: Mapping Water, 3 DAYS: Elaborate, You Solve It, Preventing Wind Erosion, 5 DAYS: Elaborate, Project: Make a Windbreak.”

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Indicator 9.1

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

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

Not Scored

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

The 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.

- The K-2 Teacher guidance materials are appropriately designed with clear, designated places for important information. For example, materials use color-coded callout boxes to identify important information easily. In “Lesson at a Glance,” the “Engage” section is green, the “Explore and Explain” section is blue, “Elaborate” is violet, and “Evaluate” is yellow.
- 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 the font used are consistent throughout the content and do not cause distraction. There is 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.
- Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. The materials include a proper amount of white space and balance well with the information in the lessons. The lessons do not distract the learner and provide detailed images related to the lesson. The images provided are both animation type as well as real-life images. The real-life images provide enough variety and diversity to include all students.
- The digital student materials include enough white space and overall design that does not interfere with student learning. Student materials support student learning by including titles, prominent headings, and sections marked with subheadings. The materials progress from the first activities for Day 1 through the final activity and assessment at the end of the lesson.

- The digital teacher guidance materials are designed for easy access. The materials include links to ancillary materials teachers can access to support differentiated learning within units and make access to important 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 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).
- 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 support the new words students are learning, such as flip-over pictures of *Solid*, *Liquid*, and *Texture* (Day 1: “Engage” (TEKS 2.6.A)).
- The materials include age-appropriate pictures that support student learning and engagement. Materials use photos and pictures with simple labels to help students see important features, such as a picture of a balloon with pointing parts to respond to the question: What will happen when this balloon bursts? (Day 1: “Engage” (TEKS 2.8.A)).
- The materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. In the interactive lesson on measuring weather, the student has colorful images of a rain gauge and thermometer to support their understanding of the vocabulary. The age-appropriate robot character within the interactive student lessons asks questions to support student learning and engage students.

Materials include digital components that are free of technical errors.

- The grade 2 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.
- Materials include digital components that are free of technical errors. The additional resources include the same appropriateness and details. The online versions, digital prints, and printable worksheets are error-free. All materials are free from errors and confusion.
- 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.

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

Not Scored

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

Evidence includes but is not limited to:

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

- 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 that the teacher can directly teach. The materials provide 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 lesson “Living Things and Their Environments,” the Ed Online portion provides 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 a Grade 2 lesson, “2.6B, 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. This activity helps students create

connections to what they may already know and what they wonder about. These materials can also be found in the student's interactive lessons.

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 the science and engineering practices, recurring themes and concepts, 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 the Science and Engineering Practices (SEPs), Recurring Themes and Concepts (RTCs), 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 description or the vocabulary words.
- The Interactive Student materials allow 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 “2.6A, Properties of Matter.” 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 “2.6C” Interactive Student Lesson materials, students can download the hands-on activity document and record their findings. Additionally, the Day 3 sections “Claim-Evidence-Reasoning” and “Exit Ticket” allow the student to interact with the recurring theme of *parts* of a *whole* to describe a system.

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 the 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 “2.6A, Matter,” the Teacher’s Guide in the "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 Ed Online “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 K-2 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 support the teacher on accessibility.
- The materials integrate digital technology compatible with various learning management systems. The materials are compatible with Canvas, Schoology, and Google Classroom to enhance student learning.

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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 level and align with the scope and approach to science knowledge and skills progression.	Yes
2	Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression.	Yes
3	Materials are available to parents and caregivers to support student engagement with digital technology and online components.	Yes

Not Scored

Digital technology and online components are developmentally and grade-level appropriate and provide 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. 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 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 grade-level science knowledge and skills. The materials provide related TEKS and ELPS for online and digital components 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 components to support accessibility of the TEKS provided in the scope and sequence to ensure skills progression. Examples include speech-to-text, text-to-speech, note-taking, highlighting, and more. The assessments allow for editable color schemes and font size and provide 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.

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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” 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 online resources. The Ed Online guides teachers to use 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.”