HMH Into Science Texas Grade 7

HMH Into Science Texas Grade 7 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 6	100%	100%	100%	100%
Grade 7	100%	100%	100%	100%
Grade 8	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.

HMH Into Science Texas Grade 7

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.

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

Evidence includes but is not limited to:

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

- Materials provide multiple opportunities within each unit for students to develop, practice, and demonstrate mastery of grade-level appropriate SEPs as outlined in the TEKS. Concepts present within the grade level build a foundation to prepare students for the next grade level.
- All lessons contain activities that utilize the scientific method in which students are given multiple opportunities to plan investigations, collect and analyze data, develop models, and communicate results.
    - In the "Elements and Compounds" (TEKS 7.6.A, B) "Exploration 2" activity, in the "Changes of Matter Unit," students use engineering practices to build models of molecules. Multiple "Explore" activities (titled "Exploration 1, 2, 3") within the lesson provide extra practice with comparing/contrasting elements in compounds.

- The lesson objective for students in the "Methods of Thermal Energy Transfer Unit" is to investigate methods of thermal energy transfer. In the "Engage" section, the student is to predict how energy might flow differently through solids, liquids, and gasses. For the unit's "Quick Lab," students are tasked to explore how energy can transfer from hot water to another system. The students are directed to ask questions about the transfer of heat when cooking and then to make observations about lasagna cooking. In the "Hands-On Lab" "Build and Analyze a Solar Cooker, Part 1," students further practice and master the SEPs by analyzing, creating, and improving build designs.

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

- The recurring themes are systematically placed throughout the product to continuously have the student revisit and practice the RTCs. All the units spiral recurring themes in order to help students make connections between and within overarching concepts. Teachers are provided guidance in order to consistently apply recurring themes in the classroom routinely and effectively. Teachers are encouraged to assist students to apply recurring themes to everyday life and future lessons.
  - In the "Changes of Matter Unit," "Elements and Compounds" (TEKS 7.6A-B) "Exploration 2" activity, students use engineering practices to build models of molecules. Students are asked to explore other real-world connections with diamonds and graphite by comparing diamonds in jewelry for hardness and graphite in pencil lead, which easily breaks.
  - The "Standards Overview" for the "Components of the Solar System Unit" states students will examine and model the parts of a system. "Science Themes: Systems and System Models" directs the teacher to have the students think like scientists and share a recent example of when they made and used a model to better understand a system. The student then predicts how systems and system models help us understand the components of the solar system. The learning objective of "Exploration 1" "Modeling the Sun and Planets" is for students to make a model of the solar system. The student will use various size round objects to create a scale model of the solar system. In "Exploration 2," students use ropes of two different lengths to represent the orbits of planets. The students in the group time themselves as they walk the "orbital path." Students use the model to make observations about the orbits of the planets.
  - The "Standards Overview" for the "The Flow of Energy in Ecosystems Unit" states students examine and model the parts of a system and their interdependence in the function of the system; analyze how differences in scale, proportion or quantity affect a system's structure; and analyze and explain how energy flows through systems. During the "Engage Quick Lab" "Energy Role Game," students identify organisms and then classify them as producers, consumers, or decomposers. In the "Elicit Prior Knowledge" section, students describe how matter and energy move through an ecosystem.

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

- The materials systematically build content knowledge required to gain understanding and mastery of the TEKS by using the "5E Model" for each unit ("Engage, Explore/Explain, Elaborate, Evaluate") and focusing primarily on one content TEKS in each unit. This focus within each

unit is clearly shown in the Table of Contents of the "Teacher's Edition" as well as in each "Lesson at a Glance."
    - When viewing the Table of Contents for the "Changes in Matter Unit," this TEKS (7.6) is systematically developed from "Elements and Compounds" (7.6.A, B) to "Physical and Chemical Changes" (TEKS 7.6.C), "Aqueous Solutions" (TEKS 7.6.D), and "Solute Dissolution Rate" (TEKS 7.6.E).
    - In the "Speed and Velocity" lesson, calculating speed is first introduced, followed by understanding and calculating velocity motion, before students encounter distance-time graphs. Content knowledge is presented gradually in order to build concept understanding and mastery.
- Grade 7 content knowledge and skills are taught using SEPs and RTCs so that students can build, connect, and apply knowledge in new contexts. The materials combine the use of short quick labs and longer hands-on labs to reinforce the SEPs and RTCs. In each unit, the student is spending 40% or more of the unit integrating SEPs through investigations in order to reinforce understanding of the TEKS.
    - For example, in the "Lesson at a Glance" for the lesson "The Flow of Energy in Ecosystems" (TEKS 7.12.A), on Day 1 students complete a "Quick Lab," and on Day 3, a "Hands-On Lab." Out of five days for the lesson, two days integrate SEPs practices into investigations.

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 provide many opportunities to use grade-level SEPs across various contexts throughout the product. Students engage in problem-solving and make connections across disciplines while developing an understanding of science concepts by performing "Hands-On Labs," located in all lessons' "Engage" and "Explore" sections.
    - In the "Elements and Compounds" (TEKS 7.6.A, B) "Exploration 2" activity, students ask investigative questions about molecules while using knowledge and skills of materials to demonstrate engineering practices by building models of molecules.
    - In the lesson "Aqueous Solutions," during "Exploration 2," "Describing Concentration and Dilution," students apply math concepts to study dilution and concentrations of lemonade to better understand the concept of solute per volume of solvent in its relation to concentration. They then relate this concept to the real-world phenomenon of sea surface salinity and the process of the water cycle. Students analyze and explain phenomena, answering questions such as "Why does the concentration of salinity increase when water evaporates?" and "Why do precipitation and runoff dilute salt water?" In the following "Do the Math" section, students solve four word problems to show mastery of the mathematics required for understanding concentration.

HMH Into Science Texas Grade 7

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.

- Materials consistently embed phenomena and problems across lessons to support the development of knowledge through authentic application and performance of SEPs, RTCs, and grade-level content as outlined in the TEKS.
    - In the "Aqueous Solutions Unit" (TEKS 7.6.D), students identify components of systems and recurring themes and concepts and the phenomenon of tea in a cup of hot water. Students revisit the science theme of stability and solutions by eliciting prior knowledge of making lemonade or tea solutions.
    - The "Physical or Chemical Change" lesson includes a "Hands-On Lab" where students burn a wooden stick, use a magnet to separate sand and iron filings, and drop an effervescent tablet in water. Students create a hypothesis, test their hypothesis during the hands-on lab, and then write their evidence while supporting it with their reasoning.
    - In the "Force, Motion and Energy Unit," students are introduced to thermal energy and how it is transferred. Students develop their knowledge further by constructing a solar oven to demonstrate thermal energy transference.

- In the "Aqueous Solutions Unit" (TEKS 7.6.D), students use recurring themes and concepts of scale, proportion, and quantity. Students analyze how differences in scale, proportion, or quantity affect a system's structure or performance. Students act as scientists as they collect and analyze data in the "Quick Lab" "Identifying Solutions." The teacher connects the phenomena in an authentic way by having the students think about why they shake a bottle of juice before opening it. Further connections are made when students take this concept and apply it to dissolved oxygen in a river compared to lemonade.
- In the "Aqueous Solutions Unit" (TEKS 7.6.D), students continue to use the RTC of scale, proportion, and quantity when they compare aqueous solutions in the "Hands-On Lab." The students use words such as *solute*, *saturated*, *undissolved,* and *solvent*. Scale, proportion, and quantity are used again as students continue to build on their experiences and learn about concentration and dilution. Students calculate the concentration, applying math skills to science problems.

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

- Materials intentionally leverage prior knowledge and experiences related to phenomena and engineering problems.
  - In the "Aqueous Solutions Unit" (TEKS 7.6D) students identify prior knowledge of systems and recurring themes and concepts and the phenomenon of tea in a cup of hot water. Students revisit the science theme of "Stability and Change" to help make sense of phenomena related to aqueous solutions.
  - In the "Temperature and Thermal Energy Unit" (TEKS 7.8), students elicit prior knowledge by describing a time when knowing or measuring the temperature of something was important.
  - In the "Elements and Compounds Unit," the teacher reviews previously learned academic vocabulary terms: *elements* and *atoms*. Students create visuals for both terms before offering feedback to their peers as to the clarity of each other's visuals and how well they represented the two terms. Later, the teacher directs students to act like scientists and explain how they might figure out how many marshmallows, graham crackers, and chocolate bars are needed in order to make smores for five people. Students must apply prior knowledge from the previous lesson, where they learned about compounds and the ratios of elements in a compound.
- In each unit, students use prior knowledge of safety icons to review all safety cautions and icons related to investigations. At the beginning of the unit, the teacher elicits prior knowledge from the students by asking them to describe a symbol or shorthand they use to represent something more complex. This helps students connect writing formulas with symbols as they move through the units.
  - In the "Hands-On Lab" "Observe, Grow, and Model Crystals, Part 1" some of the safety icons to review are *disposal*, *gloves*, and *goggles*.

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

- On the planning pages before each lesson, the material clearly outlines for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.

    - The “Standard Overview” in the “Aqueous Solutions Unit” (TEKS 7.6.D) lists lesson objectives for “Energy and Energy Transfer” and gives “Scientific and Engineering Practices” with descriptions that align with standards.
    - The “Lesson Map” in the “Changing Earth Unit” outlines the SEPs used (“Propose Solutions,” “Develop Explanations,” and “Relate the Impact of Research”) as well as the RTC (“Stability and Change”).
- In the print “Student Edition,” the materials identify the learning goals behind the engineering practices.
    - In the “Speed and Velocity Units” “Hands-On Lab” “Investigating Speed,” the text states the students’ learning goal: being able to compare and understand average speed.

HMH Into Science Texas Grade 7

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.

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.

- Materials include a “Scope and Sequence,” which clearly lays out and follows the suggested vertical alignment from the TEKS, helping students to build and connect knowledge and skills within and across units and grade levels. For example, grade 6 students learn about the concept of force and its components and representations; in grade 7, the motion of objects lays the foundation to discuss the effects of forces on the motion of objects; and in grade 8, students build on prior knowledge and learn about the effects of forces on the motion of objects as they investigate the laws of motion.
- In grade 6, students learn about “Organisms and Ecosystems”; in grade 7, “Energy and Matter in Ecosystems”; and in grade 8, “Stability and Changes in Ecosystems,” creating a gradual connection within each grade level.
- Materials are designed for students to build and connect knowledge across units. For example, in the “Temperature and Thermal Energy” (TEKS 7.8) unit, students build and analyze a solar cooker by using materials to construct and investigate thermal energy transfer. This unit is supported by the “Energy and Energy Transfer” (TEKS 6.8A) unit. The “Explore/Explain” activity of 6.8A’s lesson asks students to use a chart to identify sources of energy. The activity uses “Checking for Understanding” to expand into other energy transfers, like chemical to electrical energy when batteries are charged with electrical energy. Later in the “Scope and Sequence,”

the "Resource Management" (TEKS 6.11) unit's lesson "The Importance of Resource Management" has an "Engage" activity where students predict and connect how energy is related to the consumption of solar energy and other forms of energy.

- Materials are designed for students to build content knowledge across grade levels. For example, the grade 6 "Introduction to Matter" unit, the grade 7 "Changes in Matter" unit, and the grade 8 "Properties and Systems of Matter" unit connect knowledge and skills. In grade 6, the focus is on the terms *atoms* and *molecules* and comparing phases of matter; then, in grade 7, the students build on their knowledge of the terms *atoms* and *molecules*. In the "Changes in Matter" unit, in the "Elements and Compounds" lesson, students use symbols and formulas for atoms and molecules. Complexity within the grade level increases when students are later expected to use the periodic table to identify the atoms and the number of each kind within a chemical formula for TEKS 7.6B.

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

- The materials sequence instruction in a way that scaffolds learning to allow for deeper conceptual understanding. For example, students build upon their energy transfer knowledge in the "Temperature and Thermal Energy" (TEKS 7.8) unit. In this unit, students build and analyze a solar cooker by using materials to construct and investigate thermal energy transfer. This unit is supported by the "Energy and Energy Transfer" (TEKS 6.8A) unit. The "Explore/Explain" activity of 6.8A's lesson asks students to use a chart to identify sources of energy. The activity uses "Checking for Understanding" to expand into other energy transfers, like chemical to electrical energy when batteries are charged with electrical energy. Later in the "Scope and Sequence," the "Resource Management" (TEKS 6.11) unit's lesson "The Importance of Resource Management" has an "Engage" activity where students predict and connect how energy is related to the consumption of solar energy and other forms of energy. This intentionally creates learning in ways that increase conceptual understanding.
- Students build knowledge and create conceptual learning within the "Changes of Populations Over Time" (TEKS 7.13) unit. Students work in small groups to record differences in puppy characteristics (such as fur color, shape, and size) in order to classify and understand how these adaptations lead to survival. This lesson connects to the "Genes and Traits" (TEKS 8.13B) unit, where students evaluate and reflect in practice questions on how baby Howler monkeys' hands are adapted to grasp branches to increase survival chances. This progression of learning demonstrates conceptual learning within the 6–8 grades and the units "Genes and Traits" and "Changes in Populations over Time."
- On the "Forces and Motion" unit's "Lesson at a Glance" page, the sequence to scaffold learning is clearly presented and leads to a deeper knowledge of the concept. The lesson map shows students performing a "Quick Lab" to explore the different methods of thermal energy transfer. The lesson continues to build on this knowledge in the "Exploration" activities. In "Exploration 1," students identify thermal energy transfer into/out of systems by conduction, convection, and radiation with the assistance of an image of lasagna before brainstorming the different ways heat is transferred. In "Exploration Activities 2 and 3," students build and evaluate a solar cooker. At the end of the unit, the teacher directs students to think deeper by asking questions such as what are some other systems that transfer thermal energy, such as how people use clothing? what matter is part of the system, and how does it change or cycle within the system? and how does energy flow within the system?

HMH Into Science Texas Grade 7

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

- Each unit of the Teacher Edition has a "Standards Overview" where the materials clearly and accurately present grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices. For example, grade-level core concepts and recurring themes are present within the "Temperature and Thermal Energy" (TEKS 7.8) unit. In this unit, students build and analyze a solar cooker by using materials to construct and investigate thermal energy transfer. This unit is supported by the "Energy and Energy Transfer" (TEKS 6.8A) unit. The "Explore/Explain" activity of 6.8A's lesson asks students to use a chart to identify sources of energy. The activity uses "Checking for Understanding" to expand into other energy transfers, like chemical to electrical energy when batteries are charged with electrical energy. Later in the "Scope and Sequence," the "Resource Management" (TEKS 6.11) unit's lesson "The Importance of Resource Management" has an "Engage" activity where students predict and connect how energy is related to the consumption of solar energy and other forms of energy.
- In the "Changes in Matter" unit, students gradually build up the concept of atoms and molecules from grade 6 by using the periodic table to count the atoms in an element or a molecule. They differentiate between graphite and diamond and observe a model of a crystal.
- The "Speed and Velocity" (7.7A) lesson starts with a task to build a map and then explain a phenomenon. Students are then provided some vocabulary information before a series of exploration opportunities (calculating speed, investigating velocity, and comparing distance and displacement) that are clearly connected to the core concepts (various motions of objects as it is specified in the student expectation 7.7A). Materials present science and engineering practices when students ask questions about how scientists can use GPS data to understand the movements of a curlew, conduct investigations to differentiate between distance and displacement, collect and analyze data to investigate velocity, and construct explanations when they write about how distance and displacement are different. Materials also clearly present recurring themes and concepts when students work with patterns in the "Science Themes" section.

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

- Materials define the boundaries of the main concepts that students must master for the grade level or course and include learning targets for grade-level concepts. Learning targets are presented with grade-level core concepts within each "Lesson At a Glance Planning Page." Each TEKS has a corresponding lesson and lesson objective. Underneath each lesson objective is a student learning objective defined to guide the students toward mastery of the content. Each unit contains a "Check Your Learning" to assist the teacher in determining whether students are on the path to mastering the learning objective through formative assessment. In the "Evaluate" section of each unit, the material provides a TEKS item analysis. A chart shows the specific standards the lesson covers in order to assist in monitoring student progress.
- Learning targets are presented with grade-level core concepts in the "Temperature and Thermal Energy" (TEKS 7.8) unit. In this unit, students build and analyze a solar cooker by using materials to construct and investigate thermal energy transfer. "TEKS Quiz Analysis" charts at the end of the unit show specific standards to assist teachers in progress monitoring and TEKS mastery levels.

HMH Into Science Texas Grade 7

- In the “Forces and Motion” unit, the lesson objective on the “Standards Overview” page clearly states that for TEKS 7.7.A, students should be able to calculate average speed using distance and time measurements from investigations. In the “Quick Lab” “Make a Map,” the learning objective states that students “make a map to solidify their understanding of the direction and distance of points relative to reference points. In “Exploration 1,” “Calculating Speed,” the students’ learning objective is to calculate speed, given distance and time. At the end of the “Explore/Explain” part of the lesson, the teacher has questions to ask from the “Check Your Learning” section to formally assess student learning.

HMH Into Science Texas Grade 7

Indicator 3.2

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- In the "Teacher Resources: Grade 7," there is a "Program Overview." The "Program Overview" explains the intent and purpose of the instructional design of the program. The "Built for Texas" section presents the following ideas of the design: the time to cover TEKS for lessons, the "5E" structure, how each lesson focuses on one TEKS, flexibility, and how the program allows students to take ownership of their learning through activity-based learning and "Student Scientist" sections. The "Scope and Sequence" shows the vertical alignment of each standard in each unit, as well as the RTCs and SEPs in each unit.
- There is a "Learning Journey" for grade 7, which describes horizontal alignment that guides the development of grade-level content. This "Learning Journey" is hyperlinked to the "Scope and Sequence" chart in the electronic Teacher Guide.
- The scope and sequence provides vertical alignment of grade-level content for TEKS 6.12, 7.12, and 8.13, showing RTCs in levels of organization in cells, organisms, and species survival. Guided development of these TEKS happens with exploration activities and opportunities for students to investigate, build models, identify organisms, and sketch locations within ecosystems within each TEKS unit.

HMH Into Science Texas Grade 7

- The scope and sequence provides vertical alignment of grade-level content for TEKS 6.6A, 7.6A, and 8.6A. In grade 6, students are introduced to matter; in grade 7, they look at “Changes in Matter”; and in grade 8, students continue to build their knowledge by studying “Properties and Systems of Matter.” The RTCs build from one grade level to the next: in grade 6, students identify and apply patterns to matter; in grade 7, students analyze and explain relationships between the structure and function of objects; and by grade 8, students are to identify patterns and examine and model the parts of a system.

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 “Standards Overview” page provides teacher background knowledge of the content, along with the common grade-level misconceptions within each lesson. An analogy that would work with students is also specified in the teacher's background information.
- Materials provide misconceptions within each lesson. For example, support for challenging concepts in the “Energy Flow in Ecosystems” (TEKS 7.12) unit lists misconceptions and teacher background information. Two misconceptions shown are that the shape of energy pyramids implies a gradual decrease in energy, and that energy stored in food is eaten up once the food is eaten.
- In the “Changes in Matter” TEKS 7.6 unit’s “Elements and Compounds” lesson, some of the misconceptions the material addresses are that elements and atoms are the same thing and that the elements on the periodic table are arranged by increasing atomic mass. The material builds teacher background by providing in-depth explanations to address the misconception. It discusses that elements are arranged by increasing atomic number and goes on to explain that this refers to the number of protons. It then explains that it is generally true that elements are somewhat arranged by atomic mass, but that there are exceptions. Examples of those exceptions are then provided with a suggestion that students go on a scavenger hunt to find the other exceptions.
- Materials contain explanations to support teacher recognition of barriers to student conceptual development. For example, in the “Changes in Matter” TEKS 7.6 unit’s “Elements and Compounds” lesson, the teacher's background is provided in the “Standards Overview.” The background information includes some helpful information that specifically targets students with dyslexia. The teacher is given ideas on how to help them conceptualize the periodic table. This background information also has several ideas for the teacher on how to make an abstract model, such as the periodic table, more tangible. For example, the teacher can make use of beads, balls of clay, or colored paper circles to visualize the particle level and to cope with so many new symbols.

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

- The materials provide a purpose for the instructional design of the program in the “Teacher’s Resources Program Overview.” The “Program Overview” shows how the program is built for student simplicity to support all outcomes and is built for Texas. Within these descriptions, the material explains how to incorporate student scientists so that students may take ownership of their learning through activity-based learning, how lessons are structured around phenomena and direct experiences, and how the Teacher's Guide is streamlined so that the teacher can launch into the content with minimal planning.

HMH Into Science Texas Grade 7

- The materials provide a framework explaining the main goal of the program. It begins by providing a “Lesson Overview” for each lesson within the unit in the “Lesson at a Glance,” where the TEKS objective is clearly stated and the plan is for engaging students to take ownership of their learning by the “5E” method. Each lesson mentions one TEKS and covers that concept using labs and written and constructed responses; it builds up gradually on the content. In the materials, the teacher assumes the role of facilitator by guiding discussions and asking questions. The emphasis of the material is on students constructing their own understanding of a scientific idea through firsthand observations, hands-on labs, and developing and using models.
- For example, in the “Forces and Motion” unit, the teacher has planning pages for the introduction of the unit and lessons that explain the intent and purpose of the design. Objectives include how forces are identified and act on objects, gravity, and magnetism. Students' activities include that they will explain, model, and identify these lesson objectives. Students clarify terms and write and express verbally or nonverbally, then explore through hands-on labs to understand the content.
- For example, in “The Changing Earth” unit, objectives in the planning pages are clearly stated as describing evidence that supports that Earth has changed over time. Students' activities are to explain, model, and identify these lesson objectives. Students clarify terms and write and express verbally or nonverbally, then explore through hands-on labs to understand the content.

HMH Into Science Texas Grade 7

Indicator 4.1

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

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

Meets | Score 4/4

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

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

- Materials clearly define sensemaking and identify specific sensemaking behavior for students by consistently providing learning activities that support students' meaningful sensemaking through writing, thinking, and acting like scientists and engineers.
- The "Program Overview" in "Teacher Resources" states that "lessons are structured around phenomena and direct experiences that lead students through the productive struggle necessary for sense-making." The material provides specific sensemaking behaviors expected of students, such as 1) using a claim-evidence-reasoning ("CER") approach to take learning experiences and turn them into scientific explanations, thus allowing students to take ownership of their learning; 2) putting students in the scientist role as they make claims based on evidence-based learning by completing hands-on labs and other collaborative activities and; 3) through the embedding of "Students as Scientists" sections in which students are to use previous learning to think deeper about each science phenomenon.

- In the "Changing Earth" (TEKS 7.10) unit, students read, write, and act as scientists during the "Describe Fossil Evidence" lesson. Students observe images and use words from a word bank in order to create a label for each fossil image. Students behave like scientists when they examine fossil images before asking their peers how the remains of organisms are trapped during sedimentary rock formation.
- The grade 7 Teacher's Edition identifies and explains the sensemaking behavior of students in the first "Exploration" section in the "Matter" unit by demonstrating physical and chemical changes and allowing students to identify evidence of each kind of change, thus helping students learn to differentiate between the two types of changes.
- The "Taxonomic System" lesson starts with a quick lab where students develop a classification system. Working with a partner, students explain their system and think like scientists by answering the question "Why is it important that scientists come up with one agreed-upon way to classify organisms?" The students practice giving "critters" a two-part scientific name. Throughout the lesson, students gather data for the "Can You Explain It?" section, where they complete a "Claims, Evidence, Reasoning" writing assignment in response to the driving question.

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

- Materials consistently provide students with multiple opportunities to engage in purposeful and targeted activities with grade-level appropriate scientific texts, such as pre-reading and vocabulary.
- In the "Speed and Velocity" lesson, students read about distance and direction before creating a graph of the treasure map based on instructions. Students then read about GPS and how a receiver is attached to a species of bird so that scientists can gather migration data. The lesson reviews vocabulary words while introducing new words like *motion, speed,* and *velocity*.
- In the "Can You Explain It?" section of the "Physical and Chemical Changes" (TEKS 7.6) lesson, students read a paragraph about corrosion and the reactions of metals with substances in the environment. Students are presented with pictures of several corroded metals for students to observe and ask questions. In "Exploration 1," students read a description of physical and chemical changes. The students are to use the knowledge from the reading to demonstrate both types of changes and obtain evidence and reasoning for why their demonstration fits in each category.
- Every "Engage" lesson in every unit includes a "Science Words" section of the Student Edition where students interact with new vocabulary.
    - In the "Elements and Compounds" lesson, the students review previous lesson vocabulary from grade 6, such as *atom*, *molecule*, and *periodic table*. The lesson provides a picture and definitions for the new vocabulary for the lesson: *element, compound, chemical symbol,* and *chemical formula*. The material then provides a vocabulary activity in which students choose one of the "Be Creative" activities to reinforce vocabulary comprehension. In this lesson, students can choose to do a description wheel, a concept map, or compare and contrast for the vocabulary activity.

HMH Into Science Texas Grade 7

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 consistently provide many opportunities for students to develop and show understanding of the science concept being taught in each lesson and communicate scientifically through writing and various forms of graphics such as diagrams and graphs.
- Every “Evaluate” section requires students to summarize what they learned and produce a scientific argument based on evidence using the “Claims, Evidence, Reasoning” scaffold. There is also a reflection portion of every Evaluate section that requires students to write explaining how their understanding of the subject changed and how this new information connects with previously learned knowledge.
- In the “Elements and Compounds” unit, students have multiple opportunities to explore and gain a deeper understanding of the lesson concept. In the “Elaborate” portion of the lesson, students research and develop an infographic or other visual of the element to show an understanding of different structures and associated properties for each structure. Graphics are used as students must draw the salt crystals clearly and accurately to represent cubic shapes.
- In the “Physical and Chemical Changes” (TEKS 7.6C) unit, students use a research project to explore properties of matter as they investigate how various properties of matter are useful in nature and how humans make use of them. Graphics are used as students use concept maps to help evaluate events or conditions that change the stability of natural or designed systems.
- In the “Engage” section for the “Speed and Velocity” lesson, a variety of ways are utilized to support students' understanding of the concept: draw a treasure map to become familiar with speed and direction, investigate speed, write about the differences in speed and velocity, and use a number line to calculate displacement.
- In the “Methods of Thermal Energy Transfer” lesson, students draw a picture of a solar cooker and label which parts will utilize conduction, convection, and radiation to transfer thermal energy to an item placed inside before building a solar cooker device in “Exploration 2.”

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

- Materials consistently support students to act as scientists and engineers using phenomena to engage in learning throughout each unit. Students develop an understanding of the subject matter and construct explanations and/or solutions to the presented phenomenon.
- In the “Physical and Chemical Changes” (TEKS 7.6C) unit, students use sensemaking through “Exploration” labs centered on physical and chemical changes. In “Exploration 1’s” hands-on lab, students use various materials to conduct a lab investigation on whether a physical or chemical change occurs. Students then explore properties of matter through a research project to investigate how properties of matter are useful in nature and how humans make use of them.
- In the “Elements and Compounds” lesson, students explain why the properties of graphite and diamond are so different despite the fact that they are made of the same element. Students work as scientists as they engage in observations and experiments, create and use models, collect and analyze various types of data, and work with scientific explanations and sensemaking.

HMH Into Science Texas Grade 7

- In the “Methods of Resource Management” lesson, students work as engineers by using engineering practices to figure out a solution to this problem: “How can you design a system to keep milk cool?”
- The hands-on labs, driven by phenomena and purposeful use of the SEPs, are used in all unit lessons.
    - The SEPs that students will use in “The Changing Earth” unit include 1) Analyze data, 2) Communicate information, and 3) Relate the impact of research.

HMH Into Science Texas Grade 7

Indicator 5.1

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials provide opportunities for students to use evidence to support their hypotheses and claims.
- Students are presented with a phenomenon (or an engineering problem) in the "Engage" section of every lesson. Here, students attempt to produce an initial explanation (or a solution to the problem). In the following "Explore" and "Explain" sections, students construct new knowledge. In the "Evaluate" section of each lesson, there is an opportunity for students to use evidence to support their claims in an effort to improve their initial explanations based on what they learned throughout the module.
    - In the "Student Digital" lesson "Humans and the Hydrosphere," the lesson objective is for students to analyze the beneficial and harmful influences of human activity on ground and surface water in a watershed. In the quick lab, students gather data on water use and analyze how their daily water use influences ground and surface water. Students read about and observe the Colorado River Basin watershed. In "Exploration 1, 2, and 3," students investigate and gather data about what influences ground and surface water. At the end of the lesson, students use the data from the explorations to

develop a claim and use evidence and scientific reasoning to answer the driving question, "What factors cause the Colorado River to no longer reach the sea?"

- Each lesson has a driving question for the students to answer. At the end of each lesson in the Teacher Edition, information is provided on how to elicit student thinking for the claims, evidence, and reasoning ("CER") process. Students review the driving question and write a short draft of their claim by reviewing data collected throughout the lesson and highlighting information to use as evidence and reasoning. Students write short annotations next to each piece of data to indicate how it relates to the claim. The material in the "Support for Student Claims and Reasoning" section has students discuss their CER with other students to receive peer feedback. Materials also provide teachers tips and encouragement for students who need to revise their claims, identify further evidence, and/or adjust their reasoning.
    - In the "Speed and Velocity" (TEKS 7.7A) lesson, students read information about GPS tracking of a curlew to learn about migration. Students then use data and graph evidence to support the driving question of how scientists use GPS to track birds. Students must use evidence to make claims about what they have learned about GPS tracking.
    - In the "Methods of Thermal Energy Transfer" lesson, the driving question is "How can you use different methods of thermal energy transfer to bake a lasagna?" A student's claim would be: "The location and materials you use affect all methods of thermal energy transfers to a lasagna during baking." The reasoning for the claim would be: "Conduction, convection, and radiation all are involved in baking lasagne. All materials emit radiation."
    - In the "Elements and Compounds" lesson, students are expected to produce a claim to the driving question that was developed from the phenomenon "How do the structures of diamond and graphite lead to different properties?" The student materials ask students to use evidence and reasoning to support their claims.
    - In the "Changing Earth" unit, the material specifically prompts students to use vocabulary from the lesson to develop a claim that answers the "Driving Question" and use reasoning to describe how the data gathered can be used as evidence to support their claim.

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

- Materials provide opportunities to develop and utilize scientific vocabulary in context.
- In "Elements and Compounds" TEKS 7.6, students are given an opportunity to use vocabulary from the lesson to develop a claim that answers the "Driving Question": "how do structures of carbon and graphite lead to different properties?"
- In the Teacher's Guide "Elements and Compounds" lesson, students have support for vocabulary words by writing them down and adding examples or pictures to show meaning. Students are also hearing and speaking vocabulary words throughout the lesson. Emergent bilingual students repeat vocabulary words with peers, utilizing methods like "I Say, You Say." Students use a "Language Development" worksheet to record new terms they encounter in the lesson. Materials also provide an anchor chart which students are reminded to use and refer to throughout the lesson.
- Every lesson has a "Science Words" section where the students recall vocabulary words from previous lessons. Students are provided with definitions and have to write down the word from the word bank, choose words from a choice of two provided, and match the word with its definition. The lessons also preview lesson vocabulary, where students are provided with the

word and its definition. Students then take notes on the lesson vocabulary term as they encounter the words in the lesson. Each unit of the material has a "Be Creative" vocabulary activity, in which students choose one activity to engage with the scientific vocabulary.

- In "Preview Lesson Vocabulary" of the "Flow of Energy in Ecosystems" lesson, students click on the hot spots for the vocabulary words. Later, students are shown a list of vocabulary words such as *primary, secondary,* and *tertiary* to match with their correct definition. Students are provided with different activities to help them remember and better understand vocabulary, such as creating a description wheel, a sketch note, or a flowchart in their journal.
- In "Preview Lesson Vocabulary" of the "Changes in Matter" unit, students have a preview of the new terms: *element, compound, chemical symbol,* and *chemical formula,* with a definition/description and picture of each term. Later, students match science words from previous lessons, such as *atom, molecule,* and *pure substance*. Students are provided with different activities to help them remember and better understand vocabulary, such as creating a description wheel, compare/contrast elements and compounds, or make a concept map in their journal.

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

- Materials incorporate argumentation and discourse throughout lessons to support developing content knowledge.
- The Teacher's Guide "Speed and Velocity" (TEKS 7.7A-B) lesson uses student questions to elicit prior knowledge about what words students use to talk about speed at home or with friends. Students relate experiences and perspectives to include talking about distance and time, using phrases such as "step on it" to do something quickly, and comparison of speed with animals or other objects such as vehicles. These questions help activate and spark student discussions and elicit thinking through discourse.
- In the "Temperature Lesson," students are presented with a video of the thermal image of a cat. The teacher leads a group discussion about what students observe in the video. The students are encouraged to look for differences in temperature and what might have caused those differences.
- In the "Changing Earth" unit, students observe rock formations in a photo and then share their conclusions about which layer was deposited first. Students continue to answer two questions regarding the history of each rock layer and the position within the layers before discussing the answer with a partner. After the students complete the quick lab, the material has three questions that students are to answer and then discuss with a partner. In the "Check Your Learning" section, students write an explanation for how they used evidence from the presented diagram to determine the relative ages of the rock types. In "Exploration 3," student groups research matching landforms across the Atlantic Ocean and then share with the class.

HMH Into Science Texas Grade 7

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.

- Materials provide opportunities for students to create and present grade-level appropriate written and verbal arguments justifying their explanations to phenomena and/or solutions to problems using evidence acquired from the text and activities.
- The Teacher's Guide provides an activity titled "Can You Explain It?" in the "Evaluate" section in every lesson. This activity provides a question regarding the phenomena or problem presented at the beginning of the lesson. Students must answer the question with their own claim and support it with evidence gathered during the lesson. Students then share their work with their peers for feedback on the soundness of the arguments made to support their claim.
    - The "Evidence for Change on Earth" (TEKS 7.10A) unit asks the question "Why do scientists think Earth's land was one large land mass millions of years ago?" At the end of the lesson, students must form and write a claim and back it up with evidence and reasoning before discussing their claims, evidence, and reasoning with fellow students.
    - In the "Elements and Compounds" lesson, students are expected to produce an explanation of the driving question that was developed from the phenomenon "How do the structures of diamond and graphite lead to different properties?." The student materials ask students to use evidence to justify their claims.

In the "Energy and Matter in Ecosystems" unit, the driving question is "Why are there so few top predators in an ecosystem compared to organisms at other feeding levels?" At the end of the lesson, students must form and write a claim and back it up with evidence and reasoning before discussing their claims, evidence, and reasoning with fellow students.

HMH Into Science Texas Grade 7

Indicator 5.2

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials consistently provide guidance for the teacher on anticipating student responses and the use of questioning to deepen student thinking.
- For example, in the "Can You Explain It?" in each lesson, students have to use written and verbal evidence and reasoning in order to support their claim. The material provides teacher guidance on reviewing the driving question and data with students in order to better support their claim, evidence, and reasoning.
- For example, in the "Explore" section of the "Speed and Velocity" lesson, students explore speed and velocity. The students calculate speed and velocity before adding the data to the table. The teacher is provided with support on how students should fill in the speed and velocity rows in the table by checking for reasonableness, such as that a typical walking speed is 1-2m/s.
- For example, in the "Organization of Organisms" unit's "Levels of Organization in Plants and Animals" lesson, students in "Exploration 1" are studying how living things are organized. Students begin by writing an argument that supports or refutes a claim to the "Evaluate" prompt the material provides before forming small groups to explain their arguments while the teacher circulates and listens. Students gather evidence based on the following guiding questions: "Cells that work together form tissue; how are the cells of a tulip organized?" "How

are tissues organized into the tulip stem organ?" and "How do the cells shown in the image of the stem relate to the organization of the stem and the plant body system?" The teacher then gives background information on levels of organization in animals, for example, over the frilled lizard. The material prompts students to apply their learning by answering the question "How does the level of organization in sundews help them capture and digest insects?" The material provides sample answers to each question for the teacher to use as a guide.

- For example, in the "Engage" section of "The Taxonomic System" lesson, the material provides questions for the teacher to direct students through the quick lab "Develop a Classification System" The lesson objective is for students to "engage with the concept of classifying organisms based on their characteristics." The facilitation questions guide students into a deeper understanding of why it is important that "scientists come up with one, agreed-upon way to classify organisms." Students are to choose and sort six objects. If the students are struggling, the material directs the teacher to ask, "What makes the objects similar?" and "Do you think these characteristics could be used to sort the objects?" In step 5 of this quick lab, students answer the question "What other ways could you have classified the objects you selected?" Students are then directed to apply this concept when the teacher asks the question "What are some naming systems you use in your community?" All questions come with sample answers.

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

- Materials consistently provide guidance for teachers to support students' development and use of scientific vocabulary. There is guidance in the Teacher's Guide for lesson vocabulary, academic vocabulary, and prerequisite vocabulary. In all the lessons, in every grade level, the Teacher's Guide provides support for teachers to help students develop and use vocabulary in every "Engage" section, in the "Science Words" section for "Support for Vocabulary," and in the "Be Creative" activities to help students use the vocabulary words in context.
- The Teacher's Guide "Thermal Energy Transfer" lesson directs the teacher to clarify the meaning of the terms. The language objective of this lesson is stated to support students in the acquisition of scientific language, including vocabulary. During the lesson, students reinforce lesson vocabulary terms by oral practice, written and nonverbally, to demonstrate understanding. At the culmination of the lesson, students use vocabulary words from the lesson to develop a claim using the driving question of the lesson.
- In the "Models of Thermal Energy Transfer" lesson, support for vocabulary in the "Engage" section directs students to hear and speak vocabulary words and use the "Language Development" worksheet and "Vocabulary Anchor Chart" to show the meaning of lesson vocabulary.
- In the "Levels of Organization in Plants and Animals" lesson, the "Vocabulary Overview" breaks the vocabulary down into three sections: "Lesson Vocabulary, Academic Vocabulary, and Prerequisite Vocabulary." In the same unit, the material includes a review of the prerequisite vocabulary after the "Engage" "Can You Explain It?" section. Students match the terms *cell, organism,* and *system* to the correct definition. Afterward, students preview the lesson vocabulary, which includes a "Language Development Worksheet" and a "Be Creative" activity. In "Exploration 1," students draw a diagram that shows the relationship between the vocabulary terms *cells, tissues, organs,* and *organ systems*.
- The material in the "Organization of Organisms" unit directs students to use vocabulary from the lesson to develop a claim that answers the "Driving Question." The Driving Question for this

unit is "How are the cells in a tulip stem organized?" students should use the terms *cells, tissue, organs,* and *organ systems* in their written claim and reasoning.

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

- Material includes teacher guidance on preparing for student discourse and supporting students' both written and verbal claims in various parts of the lessons.
- In the "Teacher's Corner," the material provides a lesson for teachers covering "Best Practices for Developing Evidence." This article and video goes into how to use evidence notebooks to organize their thinking, record observations, and perfect their language skills. The material states that "Into Science helps you (the teacher) teach students to support a claim by arguing scientifically using evidence they (the students) gathered."
- At the end of each lesson, guidance is provided for the teacher to elicit student thinking. The guide instructs the teachers to review the "Driving Question" and for students to write a short draft for their claim while reviewing the data they collected to use for evidence or reasoning. The material also provides teacher guidance on how to provide feedback to students by providing positive reinforcement for good examples of "Claim, Evidence, Reasoning" ("CER"), provide encouragement, tips for students who need to revise, and how to have students respectfully discuss their CER with their peers.
- In the "Humans and the Hydrosphere" unit, the material directs the teacher to remind students about classroom norms regarding positive interactions with classmates in case any students are sensitive about sharing the amount of water they use on a daily basis. The material points out in the "Elicit Prior Knowledge" section, where students are asked to share things about themselves, that sharing different perspectives helps students learn about and value their classmates. This sets up an attitude of respect for fellow classmates, an important part of student discourse.
- In each "Exploration" activity, the teacher leads a class discussion as part of the routine established by the material. In the "Humans and the Hydrosphere" unit's "Exploration 1," the teacher leads a class discussion in which students are to share what they learned about aquifers from the "Exploring Groundwater and Surface Water" investigation. Scattered throughout the material are more prompts that support the teacher in facilitating student discourse.
- In the "Teacher's Corner" section "Make Science Fun: Facilitating Collaboration," the material offers instruction on how to help student collaboration be successful in the classroom. For example, some tips suggested by the material to promote collaborative skills is to make sure students feel safe disagreeing with the teacher and each other, give students examples of how to properly respond to others, assign work that relates to situations in the real world that the students are excited about already, and prompt productive discourse among teams by asking questions like "What do you mean by that?" or "Can you explain what you're seeing?"

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

- Materials provide consistent support and guide teachers in facilitating the sharing of students' thinking and finding solutions. Facilitated group discussions can be found throughout the Teacher's Guide.
- Materials provide guiding questions for the teacher to use during the "Engage" section of the "Components of the Solar System" lesson. The students watch a video on a meteor in the

Earth's atmosphere. The students are led into a class discussion about the meteor and discussing where it came from.

- In the "Human Influence on Groundwater and Surface Water" lesson, the teacher leads a group discussion after "Exploration 1: Exploring Groundwater and Surface Water" activity. The material prompts the students to share what they learned about aquifers, as well as any questions/insights they might have.
- In the "Human Influence on Groundwater and Surface Water" lesson, the material prompts the teacher to support student thinking and sharing in Step 2 of the "Solutions for Surface Water and Groundwater Problems." The teacher is to direct students to "explain their solutions to other groups and work together to develop a set of guidelines for residents to follow during a drought." Students are also to share this with their teacher and with an adult at home.

HMH Into Science Texas Grade 7

Indicator 6.1

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats.

- Materials consistently provide formative and informal assessment materials. For example, in the online resources, under "All Resources," there is a tab on "Assessment." All the assessments are available online, in a PDF file or an editable Word document. The assessments include Pre-assessments, unit Readiness Checks, Formative Assessments (Apply What You Know, Lesson Check and Evidence Notebooks), Making Sense of Phenomena Formative Assessments, Lesson Quizzes, unit Performance Task, unit Tests, "You Solve It! Simulations," and Benchmark Assessments: Mid-Year Test and End-of-Year Test.
- For the "Forces and Motion" unit, many assessment resources are found under the Discover Tab (All Resources) in the Featured Category: Assessment. There are quizzes on Speed and Velocity, Motion/Distance Time Graphs, and Newton's First Law of Motion with two different options, A or B, for each quiz. There are summative assessments, again with 2 options, option A or B. The TEKS summative test includes SEPs and RTCs when applicable and consists of 12 items on average with approximately 50% multiple choice, 40% new item types, and 10% short constructed response items. Both quizzes and summatives are available in an editable, printable format or can be graded online. When graded online, reporting capabilities are available to provide data by student or by class.

HMH Into Science Texas Grade 7

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

- Materials consistently indicate which TEKS are assessed and assess all student expectations as outlined in the TEKS by grade level. For example, the end of each lesson (Evaluate section) contains a TEKS Quiz while in the Teacher's Guide, there is an Item Analysis Chart that shows which TEKS are covered and how many times it has been tested in the entire chapter along with the question number. The Forces unit at the end of the unit provides a TEKS Quiz item analysis chart to show specific standards covered in assessment questions to assist in monitoring student progress.
- Materials consistently indicate which TEKS are assessed and assess all student expectations as outlined in the TEKS by grade level. Materials contain details in the scope and sequence that identify the specific TEKS, SEPs, and RTCs that it will assess per unit. For example, in the Scope and Sequence for "The Changing Earth" unit, the student assessments will cover SEPs 1 and 3, RTC TEKS 5F and G, and TEKS 7.10. In the TEKS correlations, materials provide links that will take the teacher to specific questions, quizzes/tests, and skills banks that align with specific TEKS and RTCs. For example, if the teacher is looking for a quiz item that will assess a student's expectation for TEKS 7.6C, using scientific practices to plan experimental investigations, the link will take the teacher to item 3. Item 3 has students matching the step in the procedure and observations to the correct type of change occurring (physical or chemical). Materials also include both TEKS correlation for each assessment item and the answer keys for every assessment.

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

- Materials consistently integrate the content TEKS, the Science and Engineering Practices, and the Recurring Themes and Concepts in assessments as applicable. For example, materials provide a supplemental item bank of SEP and RTC-aligned items for the teacher to utilize as they see fit. Some features of the Skills and Themes Bank are these items can be added to quizzes or summatives as needed to supplement content. The bank consists of anywhere from 35-80 items that are presented as multiple choice, drag-and-drop, hotspot, and multi-select items.
- TEKS titles and numbers are displayed at the top of each assessment. For example, Science and Engineering practice for TEKS 7.1-7.5 has a specific assessment instrument for recurring themes and concepts.
- Materials include "You Solve It" Simulations for students to demonstrate their ability to problem-solve and perform TEKS. These performance-based tasks reveal students' understanding and mastery of the content as well as their thinking strategies by asking them to apply science concepts to real-world situations.
- The Teacher's Guide provides online resources such as the Item Analysis Chart at the end of each Lesson, which covers all the TEKS along with the SEPs and RTCs that are covered in the end-of-lesson TEKS Quiz.

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

- Material consistently poses questions in assessments that require students to apply knowledge and skills to new phenomena or problems. For example, materials include "Making Sense of Phenomena," which is part of a formative assessment outline in each lesson that gives students

the chance to revisit anchoring phenomena and apply Claims, Evidence, and Reasoning models to demonstrate learning. Remediation for struggling students is given to teachers, which helps students connect investigative phenomena back to anchoring phenomena.

- Materials require students to take the knowledge of what they have learned during the lesson in order to solve and explain the investigation. For example, in Test A for the "Changes in Matter" unit, a short answer test question shows the setup for an investigation for the rate of dissolution of sugar in water. The question is, "How can the surface area of the solute be increased AND what is the cause-and-effect relationship between increasing the surface area of the solute and the dissolution rate?"
- Material also includes different Performance Tasks centered around real-world phenomena. The Performance Task "Packed to Perfection!" has students working for a small shipping company, and they must determine which shipping material will be best to use with frozen burritos, salad mix, fresh milk, and ice cream. Each of these are packaged for sale. The student must also consider the cost of the shipping materials and the added weight to the shipping costs. The students must define the problem, conduct research, brainstorm a solution, design a model, construct a written explanation to explain their recommendation for the best solution, and prepare a presentation of their recommendation.

HMH Into Science Texas Grade 7

Indicator 6.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials consistently provide guidance on evaluating student responses. For example, when assessments are given on Ed Online, there are reporting capabilities that provide data by class or student. From these reports, students can be grouped by ability level. This provides teacher feedback and guidance on what standards need reteaching. Under the Reports tab, in the Assessment Report section, a detailed report is provided for each TEKS. It also displays Assessment Proficiency which can be exported in CSV format or printed. This report allows ability grouping and gives teachers data to foster intervention for students who may not have mastered lesson TEKS. A list of TEKS is provided, as well as individual sample students to show data and facilitate future lessons.
- Materials consistently provide guidance for evaluating student answers only in Quizzes and Tests. There is a resource with the title "Assessment Guide Answer Key." This guide includes a key for every item in every quiz and test that appears in the program, along with rationale for each choice that explains why a given wrong answer is wrong. This guide also contains a rubric to score student answers for the constructed response-type items. This guide can be accessed through the assessment section of the all resources section of the discover page on the program website.

- In each unit, the materials provide lab scoring criteria for each lab to rate students or groups in their participation in and understanding of the lab. The teacher will also find examples of acceptable answers and specific components to look for to guide them in evaluating student responses for the check for understanding that goes with each lesson, as well as for the claim-evidence-reasoning written response that students complete at the end of the unit. In the "Humans and the Hydrosphere" unit, the Engage "Making Sense of the Phenomenon" points out two pieces of evidence that students should discover and apply to the Driving Question for the unit. It also provides the teacher guidance on helping students group and select questions that relate to the Driving Question. In the Evaluate section, the material directs the teacher to check in as students complete their CER and includes tips for positive feedback. Some tips it provides are positive reinforcement for good examples and encouragement and guidance for those who need to revise. The material provides example claims and what support students should include to justify the claim.

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 consistently provide a Teacher's Guide that provides teachers with suggestions to direct to students as responses to checks for understanding. For example, the materials provide various charts, graphs, and other images in Ed reports that will support the teacher in responding to data to inform instruction and facilitate tracking of student progress. The reports available are Assessment Reports that show information about student performance, Standards Reports that indicate whether students are meeting the state standard objectives, and Growth Reports that calculate a student's targeted and anticipated growth across the school year.
- Teachers can customize reports by skill, student, class, and grade level. The reports are color-coded to differentiate between below-level, on-level, and above-level for a quick visual. These reports provide guidance for targeted intervention for individual students and/or the whole class.
- Material provides guidance to the teacher on grouping recommendations based on assessment data. In the Reports Tab, teachers will find recommendations for student grouping based on skill and performance levels.

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

- Materials provide tools that consistently relay relevant information for teachers to use when planning instruction, intervention, and extension. For example, materials provide extension resources relating to concepts within the lesson. In the Hands-on Lab "Classification of Organisms," students must research and create a project demonstrating kingdoms and their importance in the ecosystem according to lab scoring criteria. Guiding student questions are given for teachers to informally check for understanding and predict and explain students' projects. Support for students provides differentiation and extra support for claims and reasoning detailing feedback teachers are directed to provide students during intervention.
- Materials provide relevant information in the Assessment Report found under the Reports Tab. The reports can be broken down into an item analysis and also show the two lowest-performing standards. The material in this Assessment Report provides recommendations for grouping and

will produce a computer-generated grouping based on student mastery. It also allows the teacher to customize groups. The teacher can use the information from these reports to differentiate instruction, extension activities, and reteaching.

- Materials include Assessment Guide Answer Keys for all quiz, test, and skill bank items. In the Assessment Guide informational sheet, the material provides reteaching support for all assessment items. If a student missed Unit 8, question #3, a drag-and-drop type question, the reteaching support states that students may need to review the systems by researching and then summarizing their functions. This guide also contains a rubric to score student answers for the constructed response-type items. This informational sheet provides a rationale for "why" answer choices are incorrect. The guide contains guidance for reteaching concepts related to each assessment item. This information about the content or skill students need to review, as well as suggested teaching strategies to support that review, can be found in the digital Answer Key.

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

- Materials provide a variety of student resources for teachers to use in response to student data. For example, materials provide direct instruction that includes background information, group discussion, suggestions for struggling students, extension and challenge activities, as well as ELPS resources for differentiation. In the Discover Tab, All Resources section, the teacher has access to extra resources such as Video-Based Projects like "A Prosthetic Hand," Project Worksheets, and Performance Task Activities.
- ELPS materials support emergent bilingual students with additional resources such as vocabulary builders, verbal/written question and answer sessions, and lab activities in each lesson to build concepts and reinforce lesson themes.
- Materials also provide online support data reports and recommendations for grouping students according to assessment results. Reteaching support for teachers can be found through Ed online. Materials provide three resources for reteaching in the Planning for Differentiation for the "Humans and the Hydrosphere" unit: ScienceSaurus Topics 352 & 353 and Supplemental Lesson: Human Impact on Water, and the Performance Task "Should we build a dam?" The material offers many of its resources in different formats such as Word, PDF, or Online Interactive Lessons for teacher/student choice. Materials in the Evaluate/Assessment section state that "more review and remediation strategies are in the Answer Keys on Ed."

HMH Into Science Texas Grade 7

Indicator 6.3

Assessments are clear and easy to understand.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials consistently provide assessments that contain items that are scientifically accurate and free from errors.
    - For example, in the "Forces and Motion" unit, the assessments contain scientifically accurate information regarding forces and avoid bias with multiple Exploration activities, provide background knowledge, and enhance learning to target all students from various backgrounds and ethnicities.
    - The "Speed and Velocity" (TEKS 7.7.A and B) Quiz A is free from mislabeling units of measurement. The material uses the correct units and abbreviations for speed, velocity, distance, and time in the tables and graphs throughout the assessment.
    - The "Aqueous Solutions" (TEKS 7.6.D) Quiz A accurately assesses students on how to safely dilute an acid in the laboratory. The question item specifies pouring slowly and stirring with a glass rod to dissipate the heat generated during the dilution.
- Assessments consistently avoid bias.
    - For example, the "The Flow of Energy in Ecosystem" lesson provides images of animals and plants along with their names to avoid the assumption that all students know the name of every animal
    - The "Changes in Matter" unit test assesses knowledge and skills learned in the unit and contains phenomena/situations that every student comes across regardless of their background.

HMH Into Science Texas Grade 7

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

- Materials consistently include assessment tools with clear pictures and graphics that are developmentally appropriate.
- The Evaluate section Practice Questions of the "Force and Motion" unit have clear and age-appropriate images shown alongside questions. The graphic illustrates a girl dropping a ball from a cliff, and students estimate how far in feet the ball drops in 8 seconds. Each foot has a number measurement for students to use.
- "Newton's First Law of Motion" lesson has images that depict forces shown with arrows pointing toward the direction in which the force is applied, as well as the amount.
- The "Speed and Velocity" lesson contains various graphs for students to better understand the concept of speed and velocity.
- The "Changes in Matter" unit test contains clear and developmentally appropriate diagrams of a group of elements and compounds, as well as a picture of two students conducting an investigation and a picture of a bowl containing sugar cubes alongside a beaker of water and spoon.
- The "Elements and Compounds" Quiz A contains clear and developmentally appropriate images by representing a group of elements and compounds with a ball and stick model and utilizing tables that classify various types of matter.
- The "Flow of Energy and Cycling of Matter" Quiz A includes a food web that utilizes arrows, which clearly represent the flow of energy from one organism to another. Each organism within the food web has a label that is easy to read and clearly identifies the organism.
- In the "Flow of Energy in Ecosystems" Quiz A, the energy pyramid graphic is developmentally appropriate and clearly shows the trophic levels starting with producer, primary consumer, secondary consumer, and tertiary consumer. The graphics within the energy pyramid are of organisms that would be familiar to the students, such as plants, grasshoppers, mice, and an owl.

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

- Materials include a formal assessment guide for teachers to ensure consistent and accurate administration of assessment tools.
- Materials include Ed online Teacher Help Tools that offer customizable assessments to provide teacher guidance on creating and administration of assessment tools.
- Materials include the Science Assess and Differentiate Instruction section in Ed online. This section contains a beginning of the year and formative assessments guide for online assessments, assigning assessments, reporting, and options for differentiated instruction.
- Materials provide an assessment guide referred to as Assessment Front Matter which provides guidance and details about each type of assessment. This includes tips for classroom discussions, Check Your Learning, quizzes, and summatives. This guide supports the teacher in the types of assessment tools that are within the material.
- Materials offer two options (A and B) for both quizzes and summative assessments. Both A and B options are equivalent, accurately assess the same TEKS and skills consistently, and can serve as an accurate reflection of student progress and mastery.

HMH Into Science Texas Grade 7

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

- Materials consistently include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of learning goals.
- Materials include guidance for teachers to offer accommodations for ELPS and EL Learners. The ELPS includes assessments that are in multiple languages and offer review and remediation strategies in the Answer Keys in Ed online. These assessments are aligned to the learning goals and show progress monitoring with TEKS bullets in each unit as well as assessment reports that highlight standards met or unmet for every student.
- Materials provide on-level and modified versions as well as audio support for all assessments. Another example is found in the interactive online version of the student edition. The video clips use a closed-captioning feature to help all students see and hear scientific content.
- Materials provide text-to-speech features in the online student edition. Students can play and pause the text read to them for the assessments. They also can adjust the volume. Under the Accessibility options, students can choose Color scheme, font size, and zoom features while taking the assessment.
- Materials include a Skills and Themes bank that teachers can use to modify and add items to quizzes and summatives. With the use of the Skills and Themes bank, a teacher can customize quizzes and summatives to differentiate for student learning levels.

HMH Into Science Texas Grade 7

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.

- Materials include teacher guidance for scaffolding instruction and differentiating activities for students who have not yet achieved mastery.
    - For example, in the "Changes in Matter" unit, student differentiation and extra support are being offered to ask students to write chemical equations and identify parts of each equation that indicate a new substance.
    - For example, in the Engage section of the "Writing Formulas" lesson, extra support is provided for students who have difficulty understanding the definition of *formula.* The teacher is to point out that numerals and symbols are formulas. For differentiating challenge students, materials provide tips that tell the teacher to ask for more different formulas from the students and then compare the formulas.
- The Planning for Differentiation section of the Teacher's Guide for every unit provides guidance for teachers.
    - For example, in the "Methods of Thermal Energy Transfer" lesson, the teacher can find materials for reteaching and extension resources. For reteaching support, there is a Supplemental Lesson, "Thermal Energy and Heat," that the teacher can access digitally. The extension activity "You Solve It: How Can You Design a Heart Pack?" can also be found as a digital link.

Materials provide enrichment activities for all levels of learners.

- Materials provide enrichment activities for all levels of learners

    - For example, in the online Student Edition, the Engage section for each TEKS has a variety of different ways to show mastery of the concept for the students. It gives the students the ability to choose what path they would take in order to show an understanding of the concept.
- There are multiple Elaborate sections in all units, which allow students to extend their knowledge and apply new knowledge to new situations.
    - For example, in the Elaborate section for the "Evidence for Change of Earth" lesson, students can choose to further their knowledge by selecting Science Themes, People in Science, Continents on the Move, and Exploring the Ashfall Fossil Beds.
- Each lesson provides Exploration sections for the student to learn the concept encompassing some different learning styles. In the "Evidence for Change on Earth" unit, there are three different Hands-on Labs for the students. The lab covers observing rock formations, describing fossil evidence, and describing continental evidence by modeling the movement of the continents.

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

- Each lesson provides scaffolding for vocabulary, extension or reteaching activities, challenges, and questions for teachers to use as a means of supporting learning for students.
- In the Teacher's Corner, there is a variety of guidance for teachers in the form of videos and articles.
- In "The Flow of Energy in Ecosystems" lesson, for students who are struggling to generate questions about the phenomenon for the "Can You Explain It?" section, the product suggests telling students to look for clues about a shark's role in its ecosystem and sample questions are provided. For vocabulary, one suggestion given is for students to write down the terms and add examples or pictures. The Planning for Differentiation section of the material provides a Supplemental Lesson, "Ecology and Energy Transfer," for students who are struggling. In Exploration 1, "Describing How Organisms Get Energy," the material details a "Think Aloud" in which the teacher models a think-aloud about the Feeding Relationships in a Tropical Rainforest diagram. The material provides details in a step-by-step format and has the teacher ask other students to demonstrate thinking aloud as they follow other paths in the diagram.

HMH Into Science Texas Grade 7

Indicator 7.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include a variety of developmentally appropriate instructional approaches such as inquiry-based learning centered around real-world phenomena, collaborative learning, hands-on explorations, a Claim-Evidence-Reasoning (CER) approach to communicate findings with scientific explanations, and an instructional model centered around a driving question about a real-world phenomenon.
    - In the "Changes in Matter" unit, there is an introduction with vocabulary terms and definitions, prior knowledge activated regarding changes in matter, group discussion, research, and exploration activities with Hands-on Labs.
    - In the "Human Influence on Surface and Groundwater" unit, the students group up to investigate the daily usage of water for day-to-day tasks. Students then watch a video about the Colorado River to answer the question, "Why does the Colorado River not make it to the sea?" The class is led in a discussion based on the map of the river before students work in small groups to answer the question. After, students work individually to identify and discuss real-world connections. Students engineer an aquifer and discuss watersheds to further cement the concept of groundwater and surface water.

- In the "Methods of Thermal Energy Transfer" lesson, students observe a real-life phenomenon about the states of matter. Students generate questions they have about this phenomenon and attempt to explain why and how this phenomenon occurs. Students answer some of the selected questions, which collectively help elicit student prior knowledge. Anchor phenomenon is visited in the Evaluate lesson, and students' initial explanation of the phenomenon gets revised based on the new information and evidence collected in the explore lessons.
- In the "Earth and the Solar System" unit, the real-world phenomenon is regarding where meteors come from and how often they interact with Earth. Collaborative and hands-on inquiry-based learning takes place as students model and investigate planet orbitals, meteorite impacts, and the sun and solar system. At the end of the unit, students write a claim about the driving question, use evidence gathered throughout the lesson, and reason based on the scientific concepts learned to support their claim.

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

- Material consistently uses flexible grouping such as independent learning, small group activities, paired work as well as full class activities.
- In the "Changes of Matter" unit, students independently elicit prior knowledge about a time when they watched something disappear in water before a full class activity where they discuss a video on homogeneous mixtures. Afterward, in small groups, students record everything they notice about how a lemonade solution is made.
- In "The Taxonomic System" unit, students work individually to classify and separate a variety of objects into two groups before working with a partner to see if there could be another way to classify the objects. Students, as a whole group, watch a video about a pangolin and an armadillo to understand how scientists classify them. Students work in small groups to discuss similarities and differences between the pangolin and armadillo. Students then complete a paragraph, individually, with the missing vocabulary words.
- In the Engage section of the "Methods of Thermal Energy Transfer" lesson, the Teacher Edition suggests teachers lead a group discussion. In the Explore section, students are expected to work in groups. The teacher then leads a class discussion, and student groups share what they have observed and what their conclusions are.

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

- Material provides guidance to teachers on how to use the instructional strategies for student mastery of the concept.
- In the "Methods of Thermal Energy Transfer" lesson, students observe a phenomenon as a class before a teacher-led whole class discussion. Students work in collaborative groups to conduct investigations and make sense of models (pictorial models and animations of thermal energy transfer). Students then work independently, answering questions in the "Check Your Learning" portion of each Explore section and the "Summarize/Explain It" portion of each Evaluate lesson.
- There is detailed guidance in the Teacher's Corner section. For example, an article with the title "Make Science Fun: Facilitating Collaboration" provides ample guidance on facilitating collaboration in groups.
- In the "Energy and Matter in Ecosystems" unit, students work with a partner to complete the "Model Reuse and Recycling of Materials" Quick Lab. In the "Can You Explain It" section, the

teacher leads the whole class in a discussion when introducing the phenomenon and driving question. In the Elaborate section, students research primary productivity and then collaborate with a partner to write a short informative paper to present to the whole class. For the CER and practice questions, the material suggests students work independently; this is the same for every CER in every lesson.

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

- Materials take an approach of equitable representation when it comes to diversity. Diversity in images and references is equitable based on ethnicity, gender, and age. Information in teacher guidance documents, student materials, scientific texts, and assessments does show diversity and is equally represented in age, race, ethnicity, body shape, size, and hair texture. The "Why It Matters" section on the Reflection screen of each lesson gives students an opportunity to make connections to their own life or community.
- Materials include representations of rural and urban communities including pictures such as sheep shearing, corn crops, a NASCAR racetrack, a school bus dropping off students, and steppe farming.
- Materials include images that show scenery from global communities, including a family from Australia eating together, a person working in a rice field, and a Canadian scientist.
- The labeling of images with demographic information is included in alternative text (ALT text), as appropriate. Students who can see the images can interpret the demographics for themselves. Students using screen readers can access this information through the ALT text.
- Materials positively portray a diverse group of scientists, engineers, and people who have contributed to science in the Elaborate Overview found in each unit. For example, in the "Humans and the Hydrosphere" unit, Path 2 spotlights Dr. Rhea Graham, an engineering geologist. Other engineers or scientists that students can learn about throughout the product include, but are not limited to, Dr. Adriana Ocampo, Fritz Haber, Carl Bosch, James B. Pollack, Dr. Mahmooda Sultana, and Mergis Mavalvala.

HMH Into Science Texas Grade 7

Indicator 7.3

Materials include listening, speaking, reading, and writing support 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 material meets the criteria for this indicator. Materials include listening, speaking, reading, and writing support 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 encourages strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English.

Evidence includes but is not limited to:

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

- Materials include guidance for linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. There is detailed guidance for teachers to support EBs in the Planning for Differentiation section of the Teacher's Guide. The guide recommends teachers to clarify the meanings of terms and model completing sentence frames to help students express understanding.
- For each TEKS there is an ELPS Mini-Lesson which is broken down into three sections: Clarify Ideas, Respond to Questions, and Collaborate. The ELPS Mini-Lessons provide strategies and scaffolding for Beginning, Intermediate, Advanced and Advanced High. The Mini-Lessons model fluent reading, use gestures, short explanations, and pictures to support comprehension.
- The ELPS Mini-Lesson for the "Elements, Molecules, and Atoms" unit provides sequenced and scaffolded reading and writing accommodations from Beginning, Intermediate, Advanced to Advanced High. The read-aloud text models fluent reading and re-reads to pause for explaining vocabulary with gestures, explanations, and pictures to support comprehension.
- In the" Physical and Chemical" lesson, students preview a passage and review the image of a campfire. Students are presented with content words to add to their graphic organizer and are encouraged to use multilingual glossaries to preview word meanings. Students answer the questions that are directly related to the content such as "What's happening to the wood?" Students write short paragraphs on the differences between physical and chemical changes using the basic vocabulary from the lesson. Students share their work with a partner and encourage them to help improve each other's writing by offering peer review.

- In the unit "Force and Motion," on Day 1, the teacher is to clarify the meanings of terms and model completing sentence frames. Students then use the models to practice the language. Further instruction by the material is to have students express their knowledge in ways that are accessible to them such as write the term in a language they know, then look it up in a bilingual dictionary and/or use visuals, gestures, and other non-verbal cues to reinforce understanding.

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

- There are opportunities where students are expected to "express their understanding 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 its meaning."
- Materials include "Language X-Rays," with one to accompany each lesson in the program. These are resources specifically designed for teachers who do not speak students' first language. Cognates are covered in the "Language X-Rays" that are available with the program, with one for each TEKS Lesson.
- In the "Energy and Waves" lesson, students read a passage on energy and waves and focus on the word *oscillation*. The guide talks about oscillation based on the verb *oscillate* with an emphasis on the suffix -tion, thus changing the action verb into a noun. Other examples are *act/action* and *elect/election.*
- The planning pages for the "Evidence for Change on Earth" unit provides emergent bilingual support. These lessons include clarification of meaning of terms and modeling completing sentence frames to help students express understanding. Students express knowledge by writing a term then looking it up in a bilingual dictionary for meaning.
    - Within the electronic Student Edition, every glossary term has been hyperlinked. Clicking on the term will reveal the term and definition in English, Spanish, and Vietnamese.
    - Materials include a Multilingual Glossary, with translations of terms and definitions for 12 languages: English, Spanish, Vietnamese, Chinese, Arabic, Tagalog, Korean, Brazilian Portuguese, Russian, Punjabi, Haitian Creole, and Hmong.
- In the "Force and Motion" unit, the material reminds the teacher that it is helpful for EBs to hear and speak the words and to go through the vocabulary list using an "I say/You say" routine several times. Material also provides a Language Development Worksheet to record new terms found in the lesson and a reminder to review terms on the Vocabulary Anchor Chart.

HMH Into Science Texas Grade 7

Indicator 7.4

Materials provide guidance on fostering connections between home and school.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials provide information to be shared with students and caregivers about the design of the program.
- In the Teacher's Corner "Reaching Out With Home Letters" section, the materials provide information about the design of the program through a "Beginning of the Year" letter. This Beginning of the Year Home Letter is an editable document and explains the basic design and why of the program. It includes statements such as "provide your child with opportunities to step away from their books or computers and actively participate" and "develop skills they can apply to other situations," along with activities such as Hands-on explorations and "investigate engineering." As the document is editable, the teacher can include more information as needed to share with caregivers about the overall design of the material and how it will be utilized in the classroom.
- In the Teacher's Corner, there is a section called "Step Inside the Family Room." The purpose of the Family Room is "to help families and caregivers become active partners in teaching." The teacher first shares the Family Room Video with caregivers through email. According to the video, caregivers will find general tips on how to navigate Ed, the online resource for students.
- Materials provide digital Home Letters in the Teacher's Corner tab and also the Discover tab. The Home Letters are available for each unit and provide specific designs of the product, including TEKS and titles that explain each unit/lesson.

HMH Into Science Texas Grade 7

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

- Materials provide information to be shared with caregivers for how they can help reinforce student learning and development.
- In the Teacher's Corner, in the section called "Reaching Out With Home Letters," the materials provide information to share with caregivers. The materials include a set of letters for each grade level and for each unit within the grade, with details about the learning going on in class and age-appropriate suggestions that families can use to learn more about science and support their child. According to the material, the Home Letter for each unit describes the focus of each unit and the Performance Expectations for students, and includes additional activities that families can do at home to reinforce their child's learning. These Home letters are editable files so that the teacher can personalize them, add details about class, provide helpful websites, or include instructions for upcoming assignments.
- Home letters are one of the resources found on the Teacher's Discover page. In "Reaching Out With Home Letters" from the Teacher's Corner, the materials include a sample letter for "Engineering Design," which contains several topics for caregivers. The first topic is "What We're Doing," and it covers the lesson objectives. For example, "by the end of this lesson, your child will 1) design solutions to a problem and 2) investigate how engineers improve designs to meet needs or wants." The second topic is "At-Home Activity" and has short activities for the student to try at home. For example, the student is to find examples of technology around them and then identify the problem that the item was engineered to solve. The letter also contains online Ed helpful resources, a Science Summary, and a Preconception Alert, in which caregivers and students can look at and discuss some misconceptions about the topic.
- Materials include product support for teachers to connect with caregivers in the "Step Inside the Family Room" section. This section provides a Teacher's Corner Team, where they'll find a collection of quick, easy-to-follow tips and explanations that help families and caregivers reinforce their child's learning.

Materials include information to guide teacher communications with caregivers.

- Materials provide information to help the teacher communicate with caregivers.
- In the Teacher's Corner, "Reaching Out With Home Letters" section, materials include encouragement to teachers to keep parents and caregivers informed about what their child is learning in school and how to reinforce it at home. In order to promote this partnership, the materials provide Home Letters to help teachers stay connected and communicate important information.
- In the Teacher's Corner of the material, there is a section called "Step Inside the Family Room." The materials say this can be used to "empower the adults in your students' lives to act as your unofficial co-teachers."
- Materials include a Beginning of the Year Home Letter that gives a grade-level introduction to the units and lessons that will be learned throughout the year. These guide communication and open with information to be shared between teacher and caregiver.
- Materials provide Home Letters in the Teacher's Corner tab and also the Discover tab. The Home Letters are provided for each unit. The letter details a Science summary of the lesson as well as at-home activity and material resources.

HMH Into Science Texas Grade 7

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 “Scope and Sequence,” provided in the “Dig into the Details” as well as the “Teacher Edition,” lays out the vertical alignment of the TEKS along with the individual lessons in each unit.
- The year-long “Scope and Sequence” in “The Guide” also includes the SEPs and RTCs by grade band (K-2, 3-5, 6-8). Additionally, on the left-hand side of the document, each unit is labeled by its overall science theme, such as “Life Science,” “Earth and Space Science,” and “Physical Science.”
- A pacing guide, titled “Map Out Your Year Pacing Guide,” is provided in the “Dig into the Details” section of the product. The “Pacing Guide” identifies the time for each TEKS and unit in days and minutes for each part of the lesson.
- The TEKS section includes overarching concepts in grade 7, such as “Physical and Chemical Changes,” “The Changing Earth,” and “Organization of Organisms.”
    - For example, in the “Physical and Chemical Changes” lesson, the scope and sequence illustrates and defines TEKS 7.6.C.

HMH Into Science Texas Grade 7

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

- Each lesson in the "Teacher Edition" provides "Extensions" and "Cross TEKS" resources. In addition, for each unit, the product identifies the "Recurring Themes and Concepts" in the "Planning" section of each lesson in the "Standards Overview."
- In the "Teacher Edition," "Science and Engineering Practices" for students are readily available in the "Engage" section of each lesson. Examples are, but are not limited to, the "Quick Lab" "Identifying Solutions," located in the "Aqueous Solutions Unit," where students must analyze data of multiple solutions. Later in the same unit, in the "Exploration 1" section, the students use the data from the quick lab to further explore solutions.

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

- The "Scope and Sequence" promotes mastery and retention of the TEKS, critical thinking, and scientific reasoning by scaffolding and spiraling the TEKS, SEPs, and RTCs throughout the year.
    - For example, SEPs 2 and 3 for TEKS 1–4 are covered in the "Forces and Motion Unit" and again in the "Earth and Solar System Unit." The RTC TEKS 5A is covered in the "Physical Science Unit" in the lesson "Temperature and Thermal Energy," and again in the "Earth and Space Science Unit" in the "Humans and Hydrosphere" lesson.
- Mastery and retention are accomplished by providing many opportunities throughout the "Teacher Guidance" materials to practice science and engineering principles. The number of engineering practices contained within each lesson varies, but every lesson requires students to practice engineering principles.
    - For example, the "Student Edition's" "Methods of Thermal Energy Transfer Unit" has many opportunities to practice the SEPs. Students practice predicting in the "Engage" section, "Science Themes: Energy and Matter." They gather data in "Exploration 1" on "Which methods of heat transfer are involved in cooking lasagna in an oven?" Lastly, in "Exploration 2," students make a prediction: "Can you use radiant energy from the sun to cook?"

HMH Into Science Texas Grade 7

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials support consistency and organization of lesson planning and implementation. Examples of included materials are:
    - Lesson plans constructed using the “5E” model and similar activities for consistency.
    - The “Lesson at a Glance,” which gives a “Lesson Map” of the TEKS in each lesson, SEPs and RTCs, lesson objectives, and teacher background material.
    - Support for addressing misconceptions for each lesson.
    - Vocabulary overview for each lesson.
    - Access to online resources for each lesson (lesson plans, assessments, and enrichment activities) through technology links in the text labeled “Ed: Online.”
    - Specific content that addresses planning for differentiation as well as emergent bilingual support.
    - Color-coding for each lesson to make finding the content easier.

- The materials provide overview documents to support teachers in understanding how to use all materials and resources. For example, the "Set Up" section located in each lesson lists needed materials as well as teacher guidance for the "Pocket Labs."

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

- The "Student Edition" and "Teacher Edition" provide opportunities for cross-content standards with math and ELA.
  - The "Solar System Unit" includes both ELA and math cross-content standards. Students discuss the use of root words and suffixes and compare the Sun's diameter to other celestial bodies.
  - The "Unit on Variations" has a section called "Language SmArts," where students read "Finding Exciting STEM Careers," employing both math and ELA concepts.
  - Further use of ELA standards appears in the "Elaborate" section of the "Force and Motion Unit." Students write a science fiction story in collaboration with other students, utilizing terms like *average speed*, *velocity*, *distance,* and *displacement*.
- Below the title of each lesson, the standards are clearly presented. The standard correlations by each grade level are also provided in the "Teacher Guide's" "Lessons at a Glance" (within the "Planning" pages). ELPS are listed on the "Elaborate" pages.
  - A routine practice within each lesson unit is the "Teacher's Guide" making use of phenomena in varying places within the instructions. Lessons include student tasks to ask questions, solve problems, and move through the SEPs throughout the instructional sequence.

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

- Materials include a comprehensive list of all equipment and supplies needed to support instructional activities. Examples include:
  - A comprehensive alphabetical list of all the materials and supplies needed for each lesson related to the individual TEKS.
  - A hands-on materials list of equipment and supplies that the students need for the "Exploration" activities. Located in "Supporting Materials: Grade 7" is the comprehensive list for grade 7, where each supply is associated with the unit's TEKS. The "Student Edition" also presents a list of materials for the "Hands-On Labs," located in the "Exploration" section of the lesson. Some supplies included on the list are burette, pull back car, meter sticks, filter paper, citric acid, and graduated cylinders.
  - Each "Quick Lab" within the units includes a specific list of materials. In the "Quick Lab" "Hot Water," the materials list includes a cup, black construction paper, and hot water.
  - Individualized materials lists are also provided for each group, along with easy-to-follow setup instructions for "Hands-On" and "Quick Labs."

HMH Into Science Texas Grade 7

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

- Each lab and exploration has its own individualized safety information. Detailed safety procedures have been provided in the beginning of the material, with precise information on handling of chemicals, PPE, and lab and field activity safety.
    - “Teacher Resources” provide “Lab Safety Support” and detail lab safety requirements for all labs and activities. The “Changes in Matter” “Quick Lab” has safety information with an image to remind students of safety precautions. In the “Quick Lab” “In Hot Water,” the teacher directs students to be careful of heat and slipping and to use an apron and goggles as PPE.
    - The “Student Edition” contains reference material titled “Safety in the Laboratory and Field” so that students have clarification on expected safety practices.
    - Illustrated safety symbols are provided in both the “Student Edition” and “Teacher Edition” before each investigation, putting an extra emphasis on safety caution for that particular laboratory. In the lesson on growing crystals, the following safety alert can be found: “Alert students to keep the salt out of their eyes by not touching their face.”

HMH Into Science Texas Grade 7

Indicator 8.3

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- In “Dig into the Details,” there is a guide and recommendations for the entire year that outlines each unit by days and minutes.
- The “Map Out Your Year Pacing Guide” provides a comprehensive time for the TEKS with a further breakdown of each individual TEKS.
- The “Pacing Guide” provides three different tracks based on the teacher’s preference. Forty-five minutes represents one day’s lesson.
    - Streamlined path (6300 minutes/140 days)
    - Emergent bilinguals path (7380 minutes/164 days)
    - Extended path (8010 minutes/178 days)
- The “Teacher Guide” includes recommendations for times for lessons as well as incorporated activities, investigations, and differentiation.
    - The unit lesson for TEKS 7.7A should take six days. Day 1 is broken down into three sections of teaching: “Quick Lab,” “Can You Explain It,” and “Science Words and Themes.” Each section takes 15 minutes.
    - In the “Lesson at a Glance” for the “Elements and Compounds Unit,” TEKS 7.6AB is shown for six days at 45 minutes per day for this activity.

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

- The “Teacher Edition” includes a Table of Contents that shows the TEKS are taught in sequential order and lessons are organized to support progression of content and skills.

    - The lesson map for the "Speed and Velocity Unit" suggests six days. Day 1 is broken down into three 15-minute activities. Days 2, 3, and 4 are for student exploration. Day 5 is for elaboration, and Day 6 is for evaluation.
    - The "Changes in Matter Unit's" "Planning for Differentiation" lists steps for reteach, extension, and the developmental progression within the lesson.
- The "5E" model is consistently followed throughout the "Teacher" and "Student Edition." The unit begins with the "Engage" (a hands-on lab), before moving on to the "Exploration" and "Explanation" of the unit's TEKS. "Extend/Elaborate" is used to clarify any remaining misconceptions before ending with "Evaluation."
- Lessons in the "Teacher Edition" sometimes include a "Short on Time" or "Have Extra Time" suggestion for "Quick Labs" and "Hands-On Labs" in units.
    - The "Speed and Velocity Unit" provides a "Short on Time" suggestion where the teacher provides an already drawn map and performs the analysis steps.

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

- In the "Map out Your Year Pacing Guide," located in "Dig into Details," unit lessons are built in 45-minute increments to allow for blocks of time for each lesson.
- The pacing is a suggestion, as teachers have access to editable lesson plans for each unit.
    - The "Ed Online" section of each unit's "Lesson at a Glance" includes a link to the editable lesson plan.
    - Lessons also include suggestions for "Short on Time" or "Have Extra Time."
    - The "Map Out Your Year Pacing Guide" provides comprehensive timing for the TEKS and further breaks down each individual TEKS. It also provides three different tracks based on the teacher's preference.
        - Streamlined path (6300 minutes/140 days)
        - Emergent bilinguals path (7380 minutes/164 days)
        - Extended path (8010 minutes/178 days)
        - "Mix and Match" path to meet the needs of the individual classroom

HMH Into Science Texas Grade 7

Indicator 9.1

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

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

Not Scored

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

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

Evidence includes but is not limited to:

Materials include an appropriate amount of white space and a design that supports and does not distract from student learning.

- Materials consistently include an appropriate amount of white space and a design that supports student learning that is free from distractions. The margins/edges are consistent throughout the unit and are just the right amount of space for the page.
- Materials are consistent in the use of color, font type, and size. Materials use one main font for most of the text, while using color and other fonts to bring attention to key items that the student or teacher would need to pay special attention to within the text. Locations of important information, such as titles, subtitles, and notes, are created with their indicative colors, font types, and sizes. The design of the font is easily legible and is limited in font styles for simplicity and freedom from distraction. Visually highlighted tabs and bolded titles and subtitles are student-appropriate. The steps in the Quick Lab are bolded and stand out to the reader.
    - Titles for sections are in brown, action steps students need to do are in blue, gather data for the driving question is in a yellow box, and Exploration Hands-on Labs are introduced in a large blue box. The blue, yellow, and white colors are complementary and draw the eye to important aspects of the material.
- The planning page for each lesson in the Teacher Edition follows a consistent pattern throughout each lesson. The TEKS are specified at the top of the page with the lesson map below it. There is a consistent use of the 5E model, which is color-coded to represent each E in 5E. The Engage title has a green background, the Explore title has blue, Elaborate has purple, and Evidence has yellow. The activity title for each section is color-coded based on where it would fit in the 5E model. If it's in the Engage section, the title is colored green.

HMH Into Science Texas Grade 7

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

- Materials consistently use age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. For example, the Student Edition uses at most two pictures per page, if that. These images are clear, size appropriate for the page view, and highly relevant to the content. The pictures are accompanied by a short description of the image to help students connect the images with the content. There is no overuse of visuals that could cause distractions.
- In the Preview Lesson Vocabulary section, each image is surrounded by a box and includes a (half of the box size) colorful image to represent the vocabulary word along with a smaller text of the actual vocabulary word. For example, in "The Changing Earth" unit, the pictures are relevant and engaging, and show a colorful but simple representation of Pangaea. The materials use this picture map of Pangaea to help students with the driving question for this lesson: "Why do scientists think Earth's land was one large land mass millions of years ago?" The unit also shows real-world images of mountains representing superposition with letters labeling the younger to older rocks. This is age-appropriate and helps clarify visually what the term superposition means. Another different, real-world image of mountains is used in the Practice Questions section, in which students must identify which rock layer of the cliff in the photo formed most recently.
- Materials make use of the same or similar pictures throughout units to reinforce learning and be consistent. Pictures representing real-world fossils are used throughout the text in "The Changing Earth" unit. In the introduction to the quick lab "Model Fossil Formation" an ammonite shell fossil photo is used as an engaging visual. In the next Hands-on Lab, the materials include a photo of ammonite shell fossils embedded in limestone. Another photo of a fossil is found in the Lesson Summary. This unit also includes color-coded maps that identify important information for students to use as they study plate movement, such as the direction of movement for the plates and fossil evidence found in South America and Africa. The maps are an excellent resource within the text to help students make sense of the phenomenon of tectonic movement.

Materials include digital components that are free of technical errors.

- Materials provide digital components that are free from error. As you move through the digital Interactive Student Lessons, the materials are free of technical errors such as spelling, grammar, and punctuation. The materials also represent accurate content and information.
- Materials are also free from inaccurate content materials or information and free from wrong answer sheets to problems. For example, student activity guides are free of inaccurate content materials or information and free of wrong answer sheets to problems. When viewing the Assessment Guide Answer Keys for summatives, the answer key identifies the correct answer choices and provides accurate and relevant rationale for why the other answer choices would be incorrect.
- The student digital materials and Quick Lab videos are free of technical errors and provide accurate information.
- Materials are error-free in the Student Interactive Lessons tab. The digital interactive lessons are textually and visually error-free, and the audio works properly along with text words for read-aloud support.

HMH Into Science Texas Grade 7

Indicator 9.2

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Materials consistently integrate digital technology and tools that support student learning and engagement.
- In the "Forces and Motion" unit Student Edition, students engage with the Test Your Science Words section by using a drop-down menu to select the correct vocabulary word.
- Interactive digital lessons include questions where students are able to type their own answers. In the "Forces" unit, students watch a video before typing their observation from the video.
- Students' digital components include embedded tools such as text-to-speech, bookmark, note-taking, and read-along highlight. The notes are in the right-hand margin, and students have the option to edit, delete, and/or print their notes, providing ample opportunities for engagement.
- Students can use interactive vocabulary cards to develop and practice new vocabulary words. This interactive tool can be accessed in the Science Words section in each grade level.
- Materials consistently integrate digital technology and tools to support student learning and engagement. Materials use various interactive tools in their digital Student Edition. For example, students are using interactive vocabulary cards to develop and practice new vocabulary words. This can be accessed in the Science Words section of each 5E lesson in each grade level.
- There are also simulations for students to conduct additional/further investigations that are available through the Discover page of the product website. For example, students can use a simulation to test two chemicals to see which can be used to construct a better heat pack.

HMH Into Science Texas Grade 7

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

- Materials consistently integrate digital technology in ways that support student engagement with the SEPs, RTCs, and grade-level content. Lessons consistently include scientific investigations where students use SEPs. Students interact digitally with the materials during this process, such as watching a video about the investigation and answering questions in order to evaluate and communicate information, all of which integrate RTCs.
- The simulations found on the Discover page of the product website allow students to conduct investigations using SEPs and observe/engage with RTCs.
- In the "Evidence for Change on Earth" lesson, students are considering the RTC stability and change. In the digital interactive lesson, students rank the path of a river, the seasons, the location of oceans, and a fly's life cycle from fastest to slowest in terms of how fast they change.
- Materials include SEPs in each Interactive Digital Lesson that coincide with the print edition. In Exploration 1, 2, and 3 in the "Evidence for Change on Earth" Lesson, students propose solutions as they investigate plate tectonic activity. On the Elaborate Path 3 digital page, students engage in scientific argumentation.

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

- Materials include a digital platform, HMH Ed, which supports digital teacher-student collaboration. Materials also include teacher-teacher collaboration through sharing customized lesson plans and assessments through the My Stuff feature of the HMH digital platform. Teacher's Corner can be used as a forum for teachers to collaborate with other teachers and join the Materials Teacher's Corner Facebook community.
- Materials provide opportunities for digital integration for teachers with digital worksheets in the "Organization of Organisms" unit that could potentially be assigned individually or for collaborative work in small groups or whole groups. Hands-on Labs and Quick Labs activities in every unit have digital downloadable worksheets for student responses that can be assigned by teachers to students individually or in small groups/whole groups, but this is not integrated in the materials; it would need a third-party software to be implemented.
- Materials provide PocketLab notebook functionality and digital and student collaboration. PocketLab Notebook allows for digital student-student collaboration and digital teacher-student collaboration during Hands-on Labs, as well as for teachers to monitor student progress, review responses, and give feedback.
    - In the Engage section of the "Elements and Compounds" unit, students watch and read about graphite and diamond. Materials prompt students to observe and work with a small group to record their observations, but observations cannot be shared online with their peers.
- Materials do provide an option for teachers to leave general feedback on tests and quizzes with one overall comment.

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

- Materials are compatible with various learning management systems such as Google Classroom, Canvas, Schoology, etc. Materials provide guidance as to how to set up the integration of the materials to a given LMS. This information can be found in the Teacher's Corner on Ed Program

Support. The digital guide to get started teaching with Ed online and an LMS provides step-by-step instructions, video tutorials, and tips from instructional coaches and other teachers.

- Materials are accessible through a variety of web browsers. They are compatible with various devices, including mobile devices, as long as there is internet connection and a web browser. The digital materials are accessible on Windows 11, iPad, and iPhone, as well as Chrome, Chrome iOS, and Safari.

HMH Into Science Texas Grade 7

Indicator 9.3

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Digital technology/online components within the materials are developmentally appropriate for the grade level and align with the scope and approach to skills progression.
- The Interactive Student Lessons are broken down by each day's content with a "Stop" sign to show the end of the lesson. This reflects the developmental abilities of the grade level, with the design keeping in mind how much content students can cover in one lesson. The “Changing Earth Unit” Lesson at a Glance planning page suggests the Engage portion of the Lesson takes one day (45 minutes).
- In the "Forces and Motion" unit, the EdOnline Reteaching Support TEKS for the grade level are provided along with ScienceSaurus lesson numbers that align with grade level TEKS to support student learning and engagement with digital tools.
- Materials identify skill bank items, quizzes, assessments, explorations, review/practice questions, and performance tasks by TEKS. The materials link the resources with their point of use within the lesson. Reteaching support is built in by TEKS, and these supports can be found in the digital Answer Key on Ed. Materials also progress through the TEKS as they are outlined in the scope and sequence. The scope and sequence is accessible through the Teacher's Edition or through the Dig into the Details: Scope and Sequence.

HMH Into Science Texas Grade 7

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

- Materials provide teacher guidance for the use of embedded technology to support and enhance student learning.
- In the Lesson at a Glance page at the beginning of each Unit, Ed Online specifies that the links for specific resources will be at their point of need. In the Teacher's Corner, teachers will find many digital resources that provide step-by-step instructions, video tutorials, and professional development videos by other teachers that provide ongoing support for the teacher. A teacher can access a "Master Class: Best Practices for Developing Evidence" in the Teacher's Corner. This class supports teachers in teaching students how to support a claim by using the evidence they gathered to be able to argue scientifically.
- Materials provide a Digital Walkthrough guide with step-by-step instructions for setting up and using the technology, along with tips for troubleshooting. This guide provides detailed information with screenshots for setting up classes, creating student groups, viewing resources, assigning content, customizing assessments, using data to inform instructions, standards reports, assignments and scores, access to professional learning, and more.
- Materials use best practices for using embedded technology for differentiating instruction using technology to promote collaboration and incorporating multimedia resources into lessons. Ed Online support provides Editable lesson plans as well as reteaching supports, extensions, and cross-TEKS resources. In the Teacher's Corner, a variety of resources are offered, including classroom videos, teacher tips, and program support.

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

- Materials are available to parents/caregivers to support student engagement with digital and online components.
- In the Family Room, parents and caregivers will find program support, tips on how to navigate Ed, and Shareables for challenges to student learning.
- Under the Discover tab in HMH Resources, each TEKS has an Introductory Resource which contains Home Letters that can be sent home, which contains the Science Summary of that particular TEKS being taught, At-Home Activity, and Online Resources. These letters are editable, and the teacher can provide links to important digital resources.
- A Beginning-of-Year Home Letter provides information about what topics the students will be exploring and how the lesson is structured by incorporating scientific phenomena and engineering problems.