Summit K12 Dynamic Science Grade K

Summit K12 Dynamic Science Grade K Executive Summary

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

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

Section 2. Instructional Anchor

- The materials are somewhat 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 somewhat 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 some 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 somewhat clear and easy to understand.

Section 7. Supports for All Learners

- The materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.
- The materials include research-based instructional methods that appeal to various learning interests and needs.
- The materials partially include listening, speaking, reading, and writing supports to assist emergent bilingual students in meeting grade-level science content expectations.
- The materials provide guidance on fostering connections between home and school.

Section 8. Implementation Supports

- The materials include year-long plans with some practice and review opportunities that support instruction.
- The materials include some 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 mostly clear and easy to understand.
- The materials are mostly intentionally designed to engage and support student learning with the integration of digital technology.
- The digital technology or online components are developmentally and grade-level appropriate and provide support for learning.

Section 10. Additional Information

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

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Indicator 2.1

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

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

Partial Meets | Score 2/4

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

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

- Each Lesson Guide provides opportunities for students to develop mastery through an Engage activity, an E-Book to teach and discuss new concepts, core vocabulary, an Apply/Extend activity, a connection to a different content area, a home connection, a lab, and a review. Teachers first use the E-Book to introduce important vocabulary and concepts to the students. Once teachers finish instruction, students use their knowledge of the content to complete the Apply/Extend activities and lab. The Apply/Extend section provides students opportunities to engage in hands-on activities that provide them with opportunities to practice, design, and conduct grade-appropriate experiments. For example, in the Category 1 Lesson, Matter and its Properties, students "identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects." Using the E-Book,

teachers introduce students to the important vocabulary, including shapes, color, texture, materials, and classification. In the lab activity for this lesson, the key concept states, "The students will classify objects based on their properties." The teacher passes around different objects, such as a pencil, book, or tissue, and asks the students if the objects are hard or soft. Students record whether the object is hard or soft using the corresponding Student Lab sheet.

- The Teacher Lab guide of each lesson includes the SEPs for the lab. The materials also address the Key Concept of the lab that ties back to the SEPs. For example, in Category 1, Magnets Lab, six SEPs TEKS are listed, one of which is K.5B, "Investigate and predict cause-and-effect relationships in science." The Key Concept of the lab is "Magnets and how they can be used to move objects without touching them." In the Engage section of the lesson, bullet six states, "Quick Demo: Allow students to handle/observe the magnets as well as the different materials" and asks teachers to explain to students that "you will be learning about magnets and how they can be used to move objects without touching them. "In the Apply/Extend section of the materials for this lesson, there is a bullet that states, "Magnetic or Not Magnetic. Sort magnetic and non-magnetic images into a graphic organizer. As a class, describe how the magnet caused objects to either change or stay the same. (Handout included after the Lesson Guide."
- The lab materials include a Student Lab Sheet where students complete a thumbs up/thumbs down worksheet with pictures of the objects to record their predictions and conclusions. The lab activity lists materials and guides the teacher to ask students to "predict and conclude whether these objects (paper, paperclip, binder clip, screw, and pen) are magnetic or not magnetic." On a separate worksheet in the Apple/Extend section, students predict if the magnet will push or pull an object.
- The Kindergarten TEKS-SEPs-RTCs Crosswalk document provides guidance for teachers on which scientific and engineering practices (SEPs) opportunity is matched with content Texas Essential Knowledge and Skills (TEKS) and how often it is practiced throughout the year to support mastery. For example, SEPs TEKS K.1A is paired with content TEKS lessons for TEKS K.10C and K.13D. SEPs TEKS K.1A is also paired with content TEKS K.8B, K.9A-B, K.10B1, and K.13A-B for labs.

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

- The materials list relevant recurring themes and concepts at the beginning of each Lesson Guide and Teacher Lab, allowing teachers to make connections between and within overarching concepts during their delivery of instruction.
    - For example, in Category 2, Lesson Magnets, and Category 4, Lesson Plans, the Lesson Guide lists K.5F, which describes the relationship between the structure and function of objects, organisms, and systems, as a recurring theme.
    - For example, the Weather Changes lab correlates with the recurring theme of patterns. Students observe the weather daily and use tally marks to record their observations to make conclusions from the weather data at the end of the week. Teacher-directed questions in the lab include: "Which weather was experienced the most during the week [?]"
- The Kindergarten TEKS-SEPs-RTCs Crosswalk document shows teachers where and how often each recurring themes and concepts TEKS is matched with each content TEKS in Lab Investigations across the year. For example, RTCs TEKS K.5 is paired with content lesson labs for TEKS K.8B, K.9A-B, and K.10B1-2, for a total of five labs across the year.

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

- Each Lesson Guide uses an E-Book to develop students' content knowledge and skills strategically. There are also Apply/Extend activities and labs with each lesson. For example, in the Category 3 lesson, "Air and Wind," students identify evidence that supports the idea that air is all around us and demonstrate that wind is moving air. Teachers engage students by activating their prior knowledge by asking about their previous experiences with wind and showing pictures of wind moving different objects. Next, teachers use the E-Book to teach the class new content about wind and wind tools. The Lesson Guide provides teachers with important vocabulary and ideas to introduce as they read. After the E-Book, students apply their knowledge on two handouts where they identify objects the wind will blow and label different tools used to measure wind.
- Each lesson systematically follows the 5E model of Engage, Explore, Explain, Elaborate/Extend, and Evaluate. For example, in the Day and Night Lesson, students' prior knowledge is activated by a demonstration with a globe and a flashlight and a series of questions relating to the students' lives. An e-book is used to teach and discuss the concepts of the sun, day, night, and patterns within the concept. Teachers then check for student understanding and introduce and work with core vocabulary within the concept. Students apply their understanding by sorting objects into a graphic organizer and discussing day and night conditions scenarios as a class. There are options to engage students in writing or art around the concept. Students participate in a lab, an evaluation through a vocabulary review or study guide, and a formative assessment.

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.

- Materials include few opportunities for students to ask questions; rather, materials include teacher-directed questions throughout investigations. For example, in the Category 2 Lab, Light Travels, students demonstrate and explain that light travels through some objects and is blocked by others. At the beginning of the lab, the teacher asks, "What can we discuss about each material and our predictions and conclusions?" Students record their predictions about whether each object is translucent, transparent, or opaque. While this lab allows students to make predictions, it does not allow them to ask questions, plan, and conduct the investigation.
- While materials provide opportunities for students to conduct pre-planned investigations, they lack opportunities for student-led planning of investigations to develop an understanding of science concepts. For example, in the lab, Weather Changes, the procedures are "1. Have students go outside to observe the weather. 2. Each day, students will record on the Student Lab sheet chart with tally marks their observations of what the weather is like outside. 3. At the end of the week, students will conclude based on their observations and the information on the graph, which is the weather that was most seen during the week. 4. Discuss as a class and count how many days were rainy, sunny, cloudy, snowy, and windy." The teacher will ask, "Which weather was experienced the most during the week." 5. The teacher will ask, "Which weather conditions caused the environment to change the most? The least?" 6. Select one of the days and note the weather data. The teacher says, "Look at the weather on this day. Based on this data, what type of clothes should you wear?" The students record the weather daily and then observe and record the weather while at home on Saturday and Sunday. Students are then

asked to share their observations and describe the weather conditions to the class upon their return.

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Indicator 2.2

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

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

Partial Meets | Score 2/4

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

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

Evidence includes but is not limited to:

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

- The materials partially embed phenomena and problems by providing opportunities for students to participate in scientific investigations that begin with student-led inquiry. Materials provide an Anchoring Phenomena Inquiry Guide within the Science Lab Investigations section of the *Teacher's Guide* for use when planning a unit. The document states, "This is a general guide for teachers to use as they begin a unit. This guide allows students to see phenomena and explore the wonders of it. Then as a class or group will ask questions to establish the guiding question. As they complete the related TEKS, they will add to the class anchor chart. This document will serve as a guide for teachers to lead students through this exploration process of asking and planning the investigation." As such, the embedding of phenomena and problems to support students in constructing, building, and developing knowledge is limited to the unit and investigation level in materials, with limited inquiry-based instruction evidence across lessons. At the lesson level, most student learning experiences are teacher-driven or provide step-by-step directions that are not authentic applications of science concepts.

- While the materials do not embed phenomena and problems as the central anchor driving student learning across lessons, materials do provide lab investigations that support students in constructing, building, and developing knowledge through scientific and engineering practices (SEPs), recurring themes and concepts (RTCs), and Texas Essential Knowledge and Skills (TEKS)-aligned grade level content.
    - For example, in the lab, Light Travels, "The student is expected to: demonstrate and explain that light travels through some objects and is blocked by other objects, creating shadows. The student knows energy is everywhere and can be observed in everyday life." This corresponding student task, to determine which objects are translucent, transparent, or opaque, is aligned with the SEPs TEKS K.1A "Asks questions and defines problems based on observations or information from text, phenomena, models, or investigations." It also aligns with the RTCs K.5A "identify and use patterns to describe phenomena or design solutions." Students predict which objects they believe are translucent, transparent, or opaque and record their predictions on the Student Lab Sheet. Students then check their predictions and make a conclusion based on the activity.

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

- The materials follow the 5E model in which each Lesson Guide begins with an Engage activity. In this portion of the lesson, the materials describe how to "activate students' prior knowledge," and all of these are related to either a phenomenon or an engineering problem. For example, in the lesson for K.7A, Magnets, the students "observe a clip-on loop of a child placing a sheet of paper on a refrigerator with a magnet." The materials take a familiar experience and provide it as a starting point for scientific discussion. The materials provide a Phenomenon Sensemaking Guide to leverage students' prior knowledge and include sentence stems to support their ability to communicate their knowledge.
- The materials include opportunities and guidance for leveraging students' prior knowledge and phenomena-related experiences. For example, during a lesson on day and night, students use a paper plate and clay to create a model of the day and night sky. The teacher asks, "How does this model help you compare day and night?" and "What could you do to make your model better?" Additionally, during a lesson on seasons, students crumple up colored tissue paper squares to create leaves on a tree for each season. Teacher guidance states, "4. Have students glue the corresponding color of tissue paper to represent the leaves on the trees for each season. 5. Red, orange, and yellow tissue paper go on the fall tree. 6. No tissue paper goes on the winter tree. 7. Very little green tissue paper goes on the spring tree. 8. Green tissue paper goes on the summer tree. 9. Ask, How does your model do a good job showing the changes between the seasons? 10. Ask, What could you do to make your model better?"
- Each Kinder Lesson Guide includes an Engage component with thinking and discussion prompts to activate students' prior knowledge and experiences. Some are related to phenomena and engineering problems. For example, in the Category 2 Lesson, Light, the Engage component poses the following questions: "What are light sources you see in our classroom? Your home? Outside? When we are learning or doing work, do we need to turn on every single light in the room? Why or why not? When is light not needed? When is only a small amount of light needed?" Another example is in the lesson, Young Plant, where the teacher guidance for the Engage portion suggests the teacher present the E-Poster of what students will be learning and the poster related to phenomena and scientific and engineering problems. The Engage lesson

activates students' prior knowledge with a series of questions, including, "How are these plants the same? How are these plants different? Discuss the leaf shape, structure, roots, and stems of each plant and how they are similar or different."

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

- Lesson Guides outline the scientific concepts and learning goals behind the content introduced in the lesson. At the beginning of each lesson, teachers find a student learning objective, SEPs, and RTCs. While Lesson Guides provide this for each individual lesson, it is important to note that there is no evidence of unit overviews that provide teachers with information on unit goals and standards covered throughout the entire unit. The materials provide students with opportunities to build an understanding of the content presented in the lesson through readings, activities, and labs.
- In each Lesson Guide, the materials provide a "Students will..." statement that outlines the goal behind each phenomenon and engineering problem. For example, in the Lesson Plants, the first statement in the guide is, "Students will: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow. The student knows that plants and animals depend on the environment to meet their basic needs for survival." In addition, each Lesson Guide outlines the specific SEPs that the lesson covers in TEKS number and description. For example, in this lesson, there are two SEPs TEKS listed. They are K.2B Analyze data by identifying significant features and patterns and K.3B Communicate explanations and solutions individually and collaboratively in a variety of settings and formats.

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Indicator 3.1

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The materials connect new learning to previous and future learning across grade levels. The materials include a document titled “Kindergarten Vertical Alignment.” This document intends to "help close the gap between grades…[and] show how parts fit together from grade level to grade level." The document shows how the Kindergarten and Grade 1 Texas Essential Knowledge and Skills (TEKS) align in each reporting category. It also includes the Pre-Kindergarten Guidelines to complete the upward and downward vertical alignment.
- The materials provide a Vertical Alignment section in the Lesson Guide that provides the TEKS for past and future learning to explain how the content builds in future grade levels or what students learned in previous grade levels. For example, in Category 2, Lesson "Light," after the student objective, the materials state, "The student knows that energy is everywhere and can be observed in everyday life."
- The Lesson Guides provide a learning goal in the "Students Will" section. This statement contains a broad overview of what students should know. For example, Category 3, Lesson Air and Wind states, "The student knows that the natural world includes earth materials and systems that can be observed." The materials include a Vertical Alignment section in the Lesson Guide that provides the TEKS for past and future learning to explain how the content builds in

future grade levels or what students learned in previous grade levels. The materials include a Grade Level Concept Connections section that states, "Students have an opportunity to extend and enhance their understanding of this concept through" and lists one or more TEKS for the current grade level.

- Materials include a vertical alignment table that supports fostering connections between students' prior knowledge and skills to current grade-level knowledge and skills. Placing this vertical alignment table within the Lesson Guide and following it with activities that directly provoke prior knowledge and are student-centered exemplify how the materials allow students to build and connect to prior knowledge.

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

- The materials follow the 5E model, which allows scaffolding when learning a new concept in each lesson. The Lesson Guides follow a routine for each lesson: Engage, Teach, and Discuss with an e-book, Misconceptions, Core Vocabulary, Apply/Extend, Connections, Lab, Review, and Evaluate. With this sequence, students are first introduced to new concepts through pictures and explanations using the e-book. Students apply knowledge of new content and vocabulary through class discussions and handouts. After all of these activities, students then complete a hands-on lab.
- According to the 5E Model section of the Teacher's Guide, "Teachers can choose from a variety of suggested activities for students to explore new concepts through concrete learning experiences, individually or collaboratively." Experiences include hands-on investigations, problem-solving, virtual labs, reading, writing, and acting as scientists and engineers. For example, in Category 1 Lesson, Classify Properties of Objects, students identify and record observable physical properties of objects. To engage students, the teacher shows the class an apple and asks them to describe it. Then, students learn about the physical properties of objects through the teacher-led e-book. Students then apply their knowledge through class discussions and four different student activities. In one, students classify shapes by their properties by coloring circles red, squares blue, and triangles yellow. There is a lab at the end of the Lesson Guide where students feel various items to determine if they are hard or soft.
- Materials contain Lesson Guides that intentionally scaffold the learning within each lesson. The Kinder Scope and Sequence and the Pacing Guide states, "This guide provides a comprehensive timeline and framework based on state standards and serves as an optional resource that teachers and administrators may use in addition to or in support of any district-provided pacing guidelines."

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

- The materials use the 5E instructional model for sequencing science instruction to clearly and accurately present grade-level core concepts. Each Lesson Guide has an Engage, Explore, Explain, Elaborate, Extend, and Evaluate section. According to the 5E section in the Teacher's Guide, each lesson begins with an Engage activity where teachers activate students' prior knowledge. Each Lesson Guide includes one lab as the Explore activity. Science and Engineering Practices (SEPs) are included in all lesson plans. Teachers use the e-book for the lesson and core vocabulary activities to explain new content. Elaborate activities include the Apply/Extend discussions or handouts, connections to other subject areas, and home connections. To evaluate

student learning, the materials list the Vocabulary Mastery Digital Flashcard Step, Study Guides, Formative Assessment by TEKS, and Lab Investigations as measures.

- The materials use e-books to present core concepts in a student-friendly way. The information in the e-books is accurate and current. The e-books use a variety of photographs and illustrations to explain new vocabulary. For example, in Category 2 Lesson, Magnets, students are introduced to the words *push, pull, motion,* and *magnet*. The e-book prompts students to make predictions throughout the reading and then explains the scientific concepts behind their predictions.
- Materials include clear and accurate presentations of the RTCs and SEPs. This is noted within each learning activity box in Lesson Guide K.7A. For example, at the top of the box that describes the "Activity: Exploring Magnets," there is a list of connected RTCs and SEPs for the activity. This is in addition to stating them at the beginning of each lesson.

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

- The materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate concepts as outlined by the TEKS. Each lesson contains a corresponding lab opportunity. Within the Teacher Lab guide provided with each lesson, the Scientific and Engineering Practices evident in the lab are provided. The materials also address the Key Concept of the lab that ties back to the scientific and engineering practices. For example, in the Category 1, Magnets Lab, six SEPs TEKS are listed, one of which is K.5B "Investigate and predict cause-and-effect relationships in science." The Key Concept of the lab is "Magnets and how they can be used to move objects without touching them. Students will predict if objects are magnetic and then record their conclusions after observing them. Students will also predict if the magnet will push or pull an object." The lab activity asks students to "predict and conclude whether these objects (paper, paperclip, binder clip, screw, and pen) are magnetic or not magnetic." Students complete a thumbs up/thumbs down worksheet to record their predictions and conclusions.
- Materials provide a minimum of 2 formal assessments per TEKS, which include: formative and vocabulary. Materials include mastery requirements within the boundaries of the main concepts of the grade level.
- For each lesson, the material provides a mastery or goal statement within the boundaries of the grade-level concepts. The student learning objectives align with the activities in the Lesson Guide. For the Classify Properties of Objects lesson, the materials state, "Students will: identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects. The student knows that objects have physical properties that determine how they are described and classified." Another example is in the Light Travels lesson, where "Students will: demonstrate and explain that light travels through some objects and is blocked by other objects, creating shadows. The student knows that energy is everywhere and can be observed in everyday life."
- The Vertical Alignment pages in the Scope and Sequence document define the boundaries of content that students must master for the grade level. This document shows the TEKS required for the current grade level and the TEKS from the previous and next grade levels. For example, in Category 2, kindergarten students are expected to describe and predict how a magnet interacts with various materials and how magnets can be used to push or pull (K.7). In first grade, students build upon this knowledge by explaining how pushes and pulls can start, stop, or change the speed or direction of an object's motion (1.7A).

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Indicator 3.2

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- The materials include a Vertical Alignment section in the Lesson Guide that provides the TEKS for past and future learning to show how the content builds in future grade levels or what students learned in previous grade levels. The materials also include a Grade-Level Concept Connections section that states, "Students have an opportunity to extend and enhance their understanding of this concept through:" and lists one or more TEKS for the current grade level to show horizontal alignment within the grade level. The Vertical Alignment document states, this resource "will help support teachers and administrators in guiding the connections between grade levels." It also states that "vertical alignment helps in setting up long-term goals at the campus or district levels."
- The materials include a Kindergarten TEKS-SEPs-RTCs Crosswalk that shows where each TEKS, SEPs, and RTC is covered in the materials. It uses a color coding system to indicate which TEKS-based lessons include SEPs and/or RTCs. One color illustrates for the teacher that the SEPs/RTCs are embedded in the lab investigation, another color indicates they are embedded within an inquiry or exploration activity. This document supports teachers in understanding the horizontal alignment of the TEKS, SEPs, and RTCs within the materials.

- The materials provide a teacher resource that explains how the SEPs are embedded within each lesson. "These include areas such as: Demonstrate Safe Practices, SEPs and Science Tools Academic Vocabulary Mastery, Contributions of Scientists and Research and Explore Resources for STEM Careers, Science Process Skills Development, Analyze and Interpret Data and Developing Evidence-based Explanations, RTCs, and Lab Investigation Videos and Virtual Field Investigations"

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 Lesson Guides provide teachers with background information with explanations and examples of science concepts. The guides also provide teachers with teaching points that go along with the e-book for the lesson. These teaching points provide teachers with information on the concepts to present as they read the e-book to the class. For example, in Category 1 lesson, Classify Properties of Objects, the Lesson Guide provides teachers with information on properties, shapes, colors, texture, materials, and classification. Under the word color, teacher guidance says, "Introduce the word color and the various types. Some colors are different shades, like light and dark. You can use your sense of sight to see the color."
- The materials provide a Misconceptions section in the Teacher's Guide that contains examples of student misconceptions to support the teacher's subject knowledge and recognition of barriers to students' conceptual development. For example, in the Rocks lesson, the teacher guidance states, "review the misconceptions with the class and allow time for them to ask questions as needed." The materials then list possible misconceptions and explanations. The misconception includes: "All rocks are the same, and it is hard to tell where they originated. In reality, rocks can be distinguished by different types based on their composition." These misconceptions sections appear at strategic points in the majority of the lessons.
- The materials provide explanations of key vocabulary for science concepts to provide explanations and examples to teachers prior to instruction. For example, in lesson K.13A, the Investigate and Learn section, the materials state “Introduce the word plant. A plant is a living thing that grows in the soil. Introduce the word structure. Structure is a part of a living thing that is needed for survival. A plant has different part structures. Plants have structures that serve a special purpose. These structures include roots, stems, leaves, flowers, and fruit.” This explains the vocabulary and provides examples to support teachers’ subject knowledge.
- The Lesson Guides provide teachers with background information and explanations and examples of science concepts to support teachers in developing their own understanding of more advanced, grade-level concepts. For example, in Lesson K.10A, the Investigate and Learn section, students are observing rocks. The teacher guide provides grade-level appropriate knowledge for the teachers of the properties students should be focusing on. The text includes, “Observable properties are ways that you can describe an object using your senses. These can include size, shape, color, and texture.” The materials then go on to explain each property in greater detail.

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

- The materials provide a purpose or rationale for the instructional design of the program. Under the Course Design section in the Teacher's Guide, teachers find a document titled Philosophy that includes seven claims as well as their Evidence and Reasoning for each claim. For example,

the first claim states, "Scientific Inquiry is the Essence of Learning Science." The evidence and reasoning provided to support this claim are, "Students Learn Science by observing phenomena, asking questions, conducting investigations, and using scientific practices to answer those questions. The best way to learn science is to do science. The Dynamic Science K-12 courses include 600+ opportunities for students to investigate, explore, and experience science as scientists and engineers; Virtual Labs and simulations; Science Lab Videos, featuring Kate the Chemist; Virtual Texas Field Investigations; Recurring Themes embedded in Lesson Guides and activities for students to make connections K-12."

- The materials provide a purpose or rationale for the instructional design of the program. Materials highlight key features of the instructional design. Under the Course Design section of the Teacher's Guide, users find a document titled 5E. In this document, users find information on how the program aligns with the 5E model and how to utilize the different materials to meet each step in the 5E model. The program states that its instructional model includes 5E and more, and provides teachers with a flexible, interactive, and hands-on approach. Students are encouraged to "productively struggle and succeed with multiple pathways of learning." For example, teachers can choose from a variety of activities in the Lesson Guide "for students to explore new concepts through concrete learning experiences, both individually and collaboratively." Experiences in the materials include hands-on investigations, problem-solving, virtual labs, and reading and writing activities. Explore activities encourage students to act as scientists and engineers and "engage in critical thinking and scientific decision-making."
- Under the Course Design section of the Teacher's Guide, users find a document titled Scientific and Engineering Practice. According to the document, "The SEPs are embedded within every Dynamic Science Lesson and articulated in the Texas Essential Knowledge and Skills (TEKS) Lesson Guides." The course also has a designated area where teachers can access SEPs, specific lessons, practice, and activities. The rest of the document explains where teachers can access instruction on the SEPs throughout the program. For example, in the Scientific and Engineering Practices section, teachers find academic vocabulary digital flashcards to support students' understanding of all SEPs vocabulary.

Summit K12 Dynamic Science Grade K

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

Evidence includes but is not limited to:

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

- The materials provide teachers with a Phenomenon Sensemaking Guide, which is used throughout the entire lesson. This sensemaking guide provides ample opportunities to act like scientists as they gather evidence and make sense of the phenomenon and science concept. The guide is used throughout the lesson and requires students to use different sensemaking behaviors, such as reading, writing, and thinking as engineers and scientists. For example, the guide includes an initial section where students explore the phenomenon. This consists of three subsections, "Observations: What do you notice about the phenomenon? Questions: What do you wonder about the phenomenon? Initial Model: Create a model to show what you think is happening." Early in the year, students will likely draw and gradually add more written text to this, providing an opportunity to act like scientists. This is used consistently throughout the lessons as an essential component to guide and formulate student thinking.

- Materials provide evidence of opportunities for students to act like scientists and engineers. For every lesson, there is a corresponding lab that allows students the opportunity to act like scientists. For example, in the Air and Wind lab, students "identify which day has the most wind." Students create a windsock and a pinwheel and observe the wind for several days. The students then discuss how the models help them understand the wind. This gives students the opportunity to explore and observe like scientists and create a windsock as an engineer would.
- While the materials provide learning activities in reading, writing, and thinking as scientists and engineers, for example, in the performance task for K.7B student page, the student's task is to "create a maze that uses a magnet to push and pull objects through it." In Part 1 of this experience, students have a checklist for the design process, which includes the steps "Decide what objects and magnets you are going to use with your maze. Create a maze. Test how a magnet pushes objects through the maze. Test how a magnet pulls objects through the maze. Make improvements based on your test. Share your maze." Students can engage in practices just like scientists and engineers, including sharing their maze at the end and discussing what they designed.

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

- The materials provide opportunities for students to engage in scientific texts by reading e-books in each Lesson Guide. E-books contain photographs, diagrams, and student-friendly definitions and explanations of new concepts. The e-books include embedded audio links for students to click so the program reads. After students listen to the e-book, the materials provide Core Vocabulary activities where students apply their knowledge of new vocabulary words. The Core Vocabulary activities are used in every lesson. For example, in Category 4 Lesson, Plant Parts, teachers use the e-book to introduce new concepts to students. The book describes a plant: roots, stems, leaves, flowers, fruits, and petals. After the book, teachers pick one of the Literacy Strategy Options under the Core Vocabulary section of the Lesson Guide. In one activity, the teacher presents the Vocabulary Boosters (digital flashcards) images to students, and students match the words to the presented image.
- Before reading each e-book, teachers present the e-poster as an overview of what students will learn in the lesson. E-posters include images and labels of important vocabulary words students will hear in the e-book. After listening to the e-book, teachers choose from five Core Vocabulary activities to practice using the new vocabulary words. An example of a Core Vocabulary activity is the Core Vocabulary Flashcards. Teachers provide students with a copy of the flashcards. The class chorally reads the words and their definitions. Students can then color the pictures on the flashcards and write the words in their science journals.
- The materials provide multiple opportunities for students to engage with scientific texts to help students make sense of concepts. The Materials include e-posters, vocabulary booster flashcards, study guides, TEKS Check-Up Handouts, and labs, which present students with grade-level appropriate scientific texts to assist students in gathering evidence and developing an understanding of concepts.

Summit K12 Dynamic Science Grade K

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 provide multiple opportunities for students to engage in various written and graphic modes of communication. For example, the materials include a section called Science Differentiated Writing. Students view a video, look at pictures, and respond to questions. In the Properties of Matter unit, students see a picture of things one might see at a fair, such as balloons, a Ferris wheel, ice cream, and baked and raw pretzels. They answer the question, "What foods do you see in the photos?" and "Describe what each of the foods is like. Begin your answer with, The foods shown in the photos are..." and "What is inside the balloons? Begin your answer with The balloons contain..."
- The materials include a Science Writing, Vocabulary Mastery section. In the Science Writing Skills section, students choose from differentiated science writing prompts. The prompts are based on themes and include Matter, Light and Sound, Earth, The Night Sky, Weather, Animals, Ecosystems, Ocean Ecosystems, and Plants. Students watch an Engage video about the theme and then choose from Level 1 or 2 prompts. The prompts also include sentence stems for students to use as they write their answers. For example, the Level 1 prompts for Ocean Ecosystems are "Which two oceans border the United States?" and "Name the living things in this photo." The Level 2 prompts say, "Name the nonliving things in the images" and "The diver has special equipment. Why does he need it?"
- The materials include a variety of graphic organizers to use under the Supplemental Resources section of the website. The Lesson Guide suggests that students use these graphic organizers as Apply/Extend activities to write about their learning. Graphic organizers include but are not limited to idea webs, sequence charts, Venn diagrams, and flowcharts. To use these resources along with the Lesson Guides, teachers go to the Supplemental Resources section, find the Reporting Category and Lesson Name, and download the PDF file for the graphic organizer.
- Each Lesson Guide provides at least one opportunity for students to write about new concepts. Some writing prompts are included in the Apply/Extend activities and many Lesson Guides include a Connect to Writing activity. This activity is often a fill-in-the-blank worksheet but can also be optional science journal prompts. For example, in Category 3 Lesson, Air and Wind, teachers choose from various writing prompts. In the Apply/Extend section, students pick a page from the e-book with a partner. In their science journals, students describe and explain the picture from the page. The teacher can also assign sentence stems for students to respond to in their journals. The sentence stems include, "Today, I learned___. In my opinion____. What I know about ___ is ___. I can explain____." The Connect to Writing section has two activities for teachers to choose from. The first is an optional science journal, where students write and/or draw the different tools to measure wind. The second is a fill-in-the-blank worksheet where students use new vocabulary words to complete sentences. An example of a sentence is: "The air feels ____ outside."
- The materials provide a variety of graphic organizers to support students in displaying their understanding of scientific concepts. For example, for Reporting Category 1, the materials provide an idea web for the lesson Adding Details with Properties, a sequence chart for the lesson Water Changing States, and a Venn diagram for the lesson Physical Properties. Other types of graphics the materials provide are a cause and effect chart, concept map, four-square chart, and a two-column chart.

Summit K12 Dynamic Science Grade K

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

- The materials provide authentic student engagement and perseverance of concepts through productive struggle while acting as scientists and engineers. In the Lesson Guide K.7A, students engage in an exploration of what objects are attracted or not attracted to a magnet. Once students complete this step, the teacher materials state, “Encourage students to think of why some of the objects are attracted to magnets while others or not.” Students need to struggle with the question and observe the properties of the objects to create an explanation of why some are attracted, and some are not. They record this information in their Phenomenon Sensemaking guide as scientists would in their professional notebooks.
- The materials provide opportunities for students to observe phenomena or take part in scientific investigations, students have opportunities to engage in phenomena and engineering design processes, make sense of concepts, or productively struggle. For example, in the Lesson Guide for K.10A, students observe pictures of different types of rocks and then are posed with the question, “What makes these rocks different?” Students think about the images of the phenomenon and then create initial ideas about how the rocks are classified. They then share their ideas with a partner. This process allows students to engage in productive struggle, scientific discourse, and sensemaking of the concept.
- The materials provide support for students to make sense of concepts. In the labs, students are encouraged to act as scientists in activities aligned with Scientific and Engineering Practices. For example, in the Air and Wind lab, students record wind observations for each day, including wind direction and speed.
- An opportunity for students to be able to make sense of concepts is in the labs provided for each topic. For example, in the Plant Life Cycle lab, students answer the question, "What are the different stages of a plant life cycle?" Students observe pictures of plants in different stages of their life cycle and discuss these cycles as a class. Students then draw pictures of the four stages and label each stage.

Summit K12 Dynamic Science Grade K

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/or verbal arguments that justify explanations of phenomena and 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 some opportunities for students to make claims and some hypotheses. The materials provide a Sensemaking Guide and lesson activities that prompt students to use evidence to support their hypotheses and claims throughout the materials. For example, Part IV: Claims, Evidence, and Reasoning - Writing asks students to articulate their claim, their evidence for it, and their reasoning. It also provides an optional section where students can combine this into a written response as appropriate for students.
- The materials include opportunities for students to use evidence to support their hypotheses and claims. For example, in Category 2 Lab, Light, students determine which type of light source is best to look at an object hidden in a paper bag. The teacher presents the class with four different light sources, such as a phone light or flashlight. First, students predict whether each light source will be "good" or "bad" to view the object inside the bag and mark their predictions on their lab sheets. Then, as the teacher demonstrates each light source, students draw conclusions about whether the light source was "good" or "bad" and mark it on their lab sheet. After the experiment, the teacher starts a class discussion and asks, "Which light source did you prefer when observing the object? Why?" Students write their final conclusions on their Student

Lab Sheet. The materials provide these sentence stems, “The best light source is ____. I prefer ___ as a light source because ___.”

- The materials provide a Sensemaking Guide that prompts students to use evidence to support their claim and walks students through the steps to gather evidence to make a claim at the end of the lesson. The materials provide opportunities for students to use evidence to support their hypotheses and claims and some prompts for students to include evidence with their claim to support the hypothesis or how to develop their hypothesis. For example in Category 1, K.6A Classify Properties of Objects, Student Lab, students answer the question, "Identify if these objects are soft or hard." The teacher passes around different objects: a pencil, book, tissue, backpack, cotton ball, glue stick, number cube, and stuffed animal. The teacher tells students, "We are going to be scientists today. We will be identifying and describing the physical properties of different objects." The teacher asks, "Is this object soft or hard?" The students discuss their answers and record their conclusions on their Student Lab Sheets. The teacher can extend the lesson by asking, "Imagine a baby has just sneezed. Think about the objects you just tested. Which one would you use to wipe the baby's nose? How does your data support your thinking?"
- Materials provide a Sensemaking Guide that supports students in using evidence to support their hypotheses and claims. The materials provide opportunities for students to share what they have learned. For example, in the Apply/Extend portion of the Weather Changes Lesson Guide, teachers "orally read the following sentence stems or write them on the board and students can cooperatively fill in the sentences. Students will practice reading the completed sentences before sharing them with the class/group. a. Today, I learned _____. b. In my opinion, ____. c. What I know about ____ is ____. d. I can explain ____."

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

- The materials present scientific vocabulary using multiple representations. During the Engage portion of the lesson, teachers use the e-poster to introduce vocabulary before reading the e-book. Then, students listen to the e-book, which includes graphics and photographs of vocabulary words. The materials also include illustrated vocabulary flashcards for each Lesson Guide. For example, in Category 3 Lesson, Wind and Air, teachers use the e-poster to introduce the words *wind, air, windsock,* and *pinwheel* using images of examples. Then, students learn more about these words in the e-book. On the windsock page, students view a photograph of a windsock. The teacher reads, “A windsock is a fabric tube that looks like a giant sock without an end. It is used to find the direction and speed of wind.”
- The materials provide students with multiple opportunities to use new vocabulary words. Each Lesson Guide includes multiple Core Vocabulary activities. Student materials include vocabulary practice, where students select statements to match pictures of vocabulary words. The Study Guides provide opportunities for students to use vocabulary words in different contexts. For example, in Category 4 Lesson, Animals, teachers choose from five Core Vocabulary activities. In the first one, the teacher writes the core vocabulary on chart paper and asks students to repeat them. In the second one, the teacher uses the Vocabulary Booster (digital flashcards) to show images to the students while students identify the word associated with the image. In the third activity, students write and illustrate each word in their science journal, share their illustrations with a partner, group, or class, and allow peers to ask questions about their illustrations. In the fourth activity, the teacher provides students with a copy of the Core Vocabulary Flashcards. The class chorally reads the words and definitions with support from the teacher, colors in the images on the flashcard, and writes the words in their science journals. In the fifth activity,

students complete the Boost Your Vocabulary handout, where students use vocabulary words to complete sentences.

- Materials include embedded opportunities to develop and utilize scientific vocabulary in context. For example, Category 4: Organisms and Environments Lesson Guide Animal Parts provides handouts for students to use lesson vocabulary to label a bird. The students are instructed to use words from the word bank to label the animal body parts. “Color the bird when you are finished and label a cat. Use words from the word bank to label the animal’s body parts. Color the cat when you are finished.” This lesson also provides a handout with sentence stems where students use lesson vocabulary to fill in the blanks.
- The materials provide an opportunity for students to use content vocabulary in the Connect to Writing portion of the lesson. In the Air and Wind lesson, the Connect to Writing worksheet provides a fill-in-the-blank worksheet with five sentences. The students complete the sentences with vocabulary words.

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

- The materials integrate discourse to support students' development of content knowledge. For example, in the Lesson Guide for K.7A, students observe a video clip of a child placing a sheet of paper on a refrigerator with a magnet. Students think about what they observed and use their Phenomenon Sensemaking Guide to record their initial observations and thoughts. Students are then taken with engaging in discourse and argumentation as “students share and compare their models with a partner and can use sentence frames to communicate their explanation: The paper was able to stay on the refrigerator because_____. and I think this because_____.”
- The materials provide opportunities for students to engage in discourse. In lab investigations, students either observe their teacher complete a demonstration or complete a hands-on activity, record their observations on their Student Lab Sheet, and draw conclusions based on the demonstration or experiment. The majority of investigations provide discussion questions for teachers to pose to students. For example, during a section of lesson K.7A the materials instruct the teacher to “have students turn and talk with their neighbor about the following questions. How is the magnet in the video connected to you? Who has an example from their own lives that is related to magnets? What are some places you see magnets being used at school?”
- The materials integrate argumentation and discourse within the stages of the learning cycle. For example, in Category 3 Lesson, Weather Changes, students demonstrate their knowledge in a variety of Apply/Extend activities but are not engaged in argumentation or discourse. One example of an activity is to have a class discussion about what can happen if it is raining. The teacher asks the class, “What problems could you encounter?” Students write and/or draw a picture in their science journal or problems they could encounter. The teacher asks, “What solutions could you have to your problem?” Students write and/or draw a picture of a solution. There is some evidence of a discussion, argumentation, or discourse in this activity.
- The materials integrate argumentation to support students' development of content knowledge and skills. There are many opportunities for students to draw conclusions based on data, such as in the Apply/Extend section of the Day and Night lesson. The teacher leads a discussion "about what can happen in the night if there was no moon." The teacher then prompts students to discuss, "What problems could you encounter?”

Summit K12 Dynamic Science Grade K

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

- The materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims using the Sensemaking Guide. For example, in kindergarten Category 1, K.6A Classify Properties of Objects Student Lab, students respond to the prompt, "Identify if these objects are soft or hard." The teacher passes around different objects: a pencil, book, tissue, backpack, cotton ball, glue stick, number cube, and stuffed animal. The teacher tells students, "We are going to be scientists today. We will be identifying and describing the physical properties of different objects." The teacher asks, "Is this object soft or hard?" Students discuss the answers, record the answers, and write their conclusions in their guide. The teacher can extend the lesson by asking, "Imagine a baby has just sneezed. Think about the objects you just tested. Which one would you use to wipe the baby's nose? How does your data support your thinking?"
- The materials provide instructions for how to construct and present a verbal or written argument using the Sensemaking Guide. Each lab begins with a question that students answer throughout the investigation. At the end of the investigation, students write their conclusion. The materials encourage students to use data and observations from the experiment to draw a conclusion using the Sensemaking Guide. For example, in Category 4 Lab, Animal Parts, the question students answer is, “What are the different parts of an animal, and what do they use them for?” The teacher shows students images of different animal parts. Students write a sentence on each animal part and what it is used for on their Student Lab Sheet. At the end of the lab, students draw the conclusion, “The parts of the animal help them with moving, hearing, seeing, and grasping.”
- The materials provide opportunities for students to justify explanations of phenomena and solutions to problems using written and verbal arguments. Students have opportunities to draw conclusions at the end of each lab. Students justify their conclusions with data or information from the investigation. For example, in Category 2 Lab, Light Travels, students determine if objects are translucent, transparent, or opaque. At the end of the lab, students draw a conclusion by filling in the blank in three sentences. The sentences read, “The ____ is transparent. The ____ is translucent. The ____ is opaque.”
- Materials provide opportunities for students to construct written and verbal explanations from learning experiences and opportunities for students to construct and present arguments that justify explanations of phenomena or solutions to problems. For example, in the lesson Rocks, Connect to Writing portion, students identify the properties of a collection of rocks, filling in the sentence stems, “The rock is shaped like a _____.” “_____ is the color of the rock.” “I feel the rock has a _____texture.” “This rock is_____ in size.” “I can classify my rocks by their _____." In the Rocks Lab, students participate in a nature walk and collect rocks, then look at their rocks and make observations. Students then discuss the characteristics of their rocks and “draw a picture, and record the shape, size, texture, and color of their rock.” Students keep track of the number of smooth rocks and rough rocks as each student shares the texture of their rock with the class. The materials direct the teacher to ”discuss the total number of smooth and rough rocks. Which category had more?” after all students have shared.

Summit K12 Dynamic Science Grade K

Indicator 5.2

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

1	Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking.	PM
2	Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context.	PM
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

Partial Meets | Score 2/4

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

Materials provide some teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. Materials include little 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 provide support and guidance for teachers in facilitating the sharing of students' thinking and finding solutions.

Evidence includes but is not limited to:

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

- The materials provide teachers with possible student responses to questions and tasks. The materials provide some guidance on the use of questioning to deepen student thinking. For example, the materials provide questions with possible student responses. In the Engage portion of the Lesson Guide, the teacher is directed to show students an image of an apple and ask them to describe the apple. The suggested answers are "color, shape, texture, and size."
- Lesson Guides include prompts with questions for teachers to ask after reading the e-book and in different Apply/Extend activities. Some Lesson Guides provide teachers with possible student responses, and others do not. For example, in Category 2 Lesson, Light Travels, the Lesson Guide provides teachers with three questions to ask after reading the e-book. The first question, "What is an example of a transparent material?" does not have a possible student response. The second question, "Explain how shadows are created," has the possible student response of, "They have to block the light." The third question, "How do you use transparent or translucent materials in your everyday life?" has the possible student response as "Answers may vary."
- The materials do not provide teacher responses to possible students' responses or how to build on students' thinking. The materials sometimes provide teachers with possible student answers

to questions provided in the Lesson Guides. There is no evidence of providing teachers with information on how to build on these possible student responses.

- For example, in Category 2 Lesson, Light, the Lesson Guide provides teachers with three prompts to ask after reading the e-book and possible student answers for each question. Question one states, “Give an example of a natural light and artificial light,” with the possible student answer, “sun and flashlight.” Question two says, “How does a light at a theater compare with a light in the classroom?” The possible student answer is, “The movie theater lights are dim, and the classroom light is bright.” The third question asks, “Why do we need light sources,” and provides teachers with three possible student answers, including “to help us see in the dark, to work at night, and to drive in the dark.” For example, in Category 2 Lesson, Magnets, teachers check for understanding with three questions. In the first question, the teacher asks, “Is this magnetic?” Students predict what will happen when the teacher holds a magnet to different materials, and then the teacher demonstrates with a magnet. In the second question, teachers ask, “Can you show me with your hands how you push something? How do you pull something?” In the third question, teachers ask, “How are magnets helpful?”

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

- Although there is limited guidance on scaffolding and student use of vocabulary in context, the materials provide teacher guidance on how to support students' development of scientific vocabulary. For example, each lesson contains an Interactive E-Poster that provides the vocabulary for the lesson as well as visuals and connections between vocabulary words. On the Day and Night E-poster, the words *day, night, pattern,* and *observe* are all accompanied by visuals, and the sentence reads, "Patterns can be seen as the sky changes." The materials guide teachers to "present the E-Poster as an overview of what students will be learning in this lesson."
- Each Lesson Guide has a Vocabulary Boosters section. In this section, teachers read the vocabulary words that are introduced in the e-book. The Lesson Guide also stars the Core Vocabulary words for the lesson. For example, in Category 2 Lesson, Magnets, the Core Vocabulary words are *motion, push, pull*, and *magnet*. Additional vocabulary words are *position, force,* and *energy*. Students first see these vocabulary words in the e-book, where teachers define the words and provide examples of the vocabulary words to students.
- The materials provide some embedded support for the teacher in how to introduce and scaffold students' development of scientific vocabulary. However, little guidance is given or scripted to support teachers in using vocabulary in context. The materials tell teachers, "After initial teaching and introducing all words, the core vocabulary should be emphasized in context throughout the lesson. The teacher will model the use of the vocabulary words when discussing the content." This section also provides teachers with a variety of activities to choose from to reinforce new vocabulary words. For example, there are five vocabulary activities in Category 2 Lesson, Light Travels. In one activity, students write the vocabulary words and illustrate them in their science journals. Then, students share their illustrations with a shoulder partner, group, or the class. In another activity, teachers use the Vocabulary Boosters (digital flashcards) to guide students in matching images to words. Teachers start a discussion by asking students for other examples of each vocabulary word.

Summit K12 Dynamic Science Grade K

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

- The materials provide teacher guidance on preparing for student discourse and supporting students using evidence to construct written and verbal claims. The Teacher's Guide provides information in the section Science Writing about the process and rationale of the Claims, Evidence, and Reasoning framework with examples. This, when combined with the student sensemaking guide and prompts for teachers in the lessons, provides opportunities for students to engage in discussion with their peers using evidence to support their claims.
- The materials provide possible sentence frames or graphic organizers to support discourse. For example, in lesson K.7A, students explore two magnets and investigate how they interact together. The students work in small groups to "compare and discuss similarities and differences of how magnets interact with each other . . .consider providing students who need additional support organizing their thoughts with a graphic organizer to compare and contrast the interactions.
- The materials provide a Teacher Guide for each performance task that provides teacher guidance to support students in using evidence to construct written and verbal claims. These guides provide guidance in Part 2: Writing a Claim for students to support the claim with evidence from the investigation, the Sensemaking Guide, and other learning experiences.
- The materials provide general sentence stems for supporting student discourse. The materials often state, "To support student discussion, discourse, and argumentation of the concept, some suggested sentence frames might include: I observed the same thing as ... and want to add that I also noticed…, I agree with ... because…, I have a question about…, Can you tell me more about…, I understand your point, and I wonder…"

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

- The materials provide support and guidance for teachers to facilitate the sharing of students' thinking and finding solutions. For example, in the Extend section of the Seasons Lab, the teacher asks the students to look at their data and answer the question, "If you want to plant a garden, which season would be the best? Why?"
- The materials provide support in guiding teachers in facilitating the sharing of students' thinking and finding solutions. The materials provide example sentence frames that assist teachers in facilitating the sharing of students' thinking and finding solutions. For example, the Category 4, Organisms and Environments Plant Life Cycle Teacher Lab document prompts the teacher to ask, "Which factors cause the plants to change from one stage to the next? What will happen if the plant does not have these factors?"
- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. The materials provide teachers with answer keys to handouts students complete throughout the lesson. For example, in Category 2 Lesson, Light, students complete two handouts in the Apply/Extend activities. In one, students compare and sort natural and artificial light images into a graphic organizer, and in the second, students write artificial or natural under each light source.
- The materials provide student pages and teacher guides for engineering challenges and performance tasks. The student pages provide structures for students to develop and organize

their thinking. The engineering challenge student pages contain specific sections for students to propose solutions and later evaluate and improve their solutions. In the section Present and Evaluate, students organize their thoughts in a chart to prepare for sharing their thinking. The performance task for K.7B has students work together to create a maze that they can push or pull objects through with a magnet. Students share their thinking and solutions throughout the task, and then at the end they share their maze with the other class groups. The Teacher rubric provided also includes a grading component for how students can describe “how a magnet interacts with materials.”

- The materials support and guide teachers in facilitating and sharing the students' thinking. Materials provide several exemplars of student-written responses as well as possible answers to questions in the Check for Understanding sections in the lessons. Materials state that teachers can use the exemplars as a guide to help them facilitate students showing their thinking in a written form.

Summit K12 Dynamic Science Grade K

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 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.

- The materials include diagnostic assessments. The Administration section of the Diagnostic Assessment Teacher Guide for K.6A states, “Prior to beginning the learning experiences, students are to complete questions 1-3 independently. For questions 4 and 5, students share their understanding of the concept with the teacher. Guidance for possible answers is given for questions 4 and 5. Teachers should use the data collected to plan the student learning experience with Lesson Guide K.6A. The assessment can also be used as post-assessment to show student growth after engaging in the Lesson Guide learning experiences.”
- The materials include numerous tools to evaluate student learning. For example, the K.6A Classify Properties of Objects Lesson Guide ends with an Evaluate section. In this section, the teacher's guidance states, "Read e-book, Vocabulary review, Interactive Study Guide, and Formative Assessment." The assessments in the Evaluate section evaluate student learning, skill acquisition, and academic achievement after a defined instructional period.
- The materials include an I-Study Guide. The Study Guide includes multiple-choice and matching questions. The assessment in K.6A includes ten questions, each with two answer choices. For example, for one question, the assessment shows a picture of a girl in an orange shirt and then asks, "What are some properties that can describe the girl's shirt: A. Orange Fabric B. Orange Plastic."

- The materials include performance tasks. For example, in K.7A students create a maze that uses a magnet to push and pull objects through it. The task guides students through the Design Process, and the teacher guide includes a rubric called Part 2: Reflection that indicates what mastery looks like and gives a glow and a grow for students to evaluate their work.
- The materials include an Evaluate section at the end of each Lesson Guide that states, "The following assessment tools can be used to assess and monitor students' mastery and understanding of key science concepts, scientific and engineering practices, recurring themes and process and academic vocabulary." The assessments listed include "Assessment 1 (Summit K12 Online), Interactive Study Guide, Student Phenomenon Sensemaking Guide" and include a Performance Task.
- The materials include an Evaluate section at the end of each Lesson Guide. The materials prompt teachers to have students log in to their accounts, read the e-book, complete the vocabulary review and Interactive Study Guide, and then take the formative assessment. In the vocabulary review, students view an image and select an answer describing the image. The Interactive Study Guide is a series of interactive questions that review concepts learned throughout the lesson. In the formative assessment, students answer multiple-choice questions about the content learned throughout the lesson. For example, students answer three interactive questions in the Interactive Study Guide for the Category 2 lesson: Light. In the first question, students are shown pictures of a flashlight, highlighter, campfire, and diamond and are prompted to click three light sources. In the second question, students sort four pictures into "Dim Lights" or "Bright Lights." In the third question, students sort six images as either artificial or natural lights. Students submit their answers for teachers to review.

Materials assess all student expectations and indicate which student expectations are being assessed in each assessment.

- Each Lesson Guide lists the standards and Science and Engineering Practices (SEPs) addressed in the activities. Lesson Guides provide teachers with a variety of activities they can use to teach new content to students. The Pacing Guide and Scope and Sequence in the Teacher Resources list the standards covered in each lesson. The materials label each assessment with the single TEKS that the lesson materials it is associated with cover. Both the TEKS Check-Ups and the Study Guide Review include the TEKS assessed in the top right corner of the assessment. For example, the TEKS for the Formative Assessment for Air and Wind is TEKS K.10C.
- The assessments available at review included both formative and summative assessments for all of the grade-level student expectations.

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

- The materials include some assessments that integrate scientific knowledge and Science and Engineering Practices (SEPs) with recurring themes and concepts. The only evidence of assessments included in the materials are the formative assessments at the end of each Lesson Guide. The formative assessments include multiple-choice questions aligned with the standard(s) covered in the lesson. There is no evidence of questions that integrate the SEPs. For example, in Category 2's formative assessment for magnets, students answer ten multiple-choice questions about the content learned throughout the lesson. Question types include yes/no questions and fill-in-the-blank questions with core vocabulary words. For example, in question three, students answer the yes/no question, "Is paper magnetic?" In question eight,

students answer, “The kids are playing tug-of-war. They are ___.” The answer choices include “pulling” or “pushing.”

- The materials provide opportunities for students to respond to prompts that apply the recurring themes within a topic. For example, in the Rocks lab, the recurring theme and concept is "Describe the properties of objects in terms of relative size (scale) and relative quantity." Throughout the lab, students describe the rocks based on size, color, shape, and texture. In the Extend portion of the lab, students use their understanding of the patterns of rocks to respond to the prompt, "Collect a different rock and make observations and write or draw the color, shape, texture, and size of the rock."
- The materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts. For example, K.13A includes a Performance Task: Plant Model and lists SEPs K.1G, K.3A RTCs K.5C, and K.5E above the activity.
- The Performance Task for K.7A, “An Amazing Task,” students create a maze that uses a magnet to push and pull objects through it. In Part 1, students go through the design process to create their maze. Students follow a check-list, which includes “decide what objects and magnets you are going to use with your maze, create a maze, test how a magnet pushes objects through the maze, test how a magnet pulls through the maze, make improvements based on your test, and share your maze.”

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

- The materials include formative assessments that focus on assessing knowledge and memorized content, not skills. For example, in Category 1, K.6A Matter and Its Properties, the "Formative Assessment" shows students a picture of wooden blocks and states, "The blocks are being classified by: A. Shape, B. Material."
- The materials include Performance Tasks that require students to apply knowledge and skills to a new phenomenon or problem. The materials include a sensemaking guide, performance tasks, and diagnostic assessments.
- The materials include a Performance Task as a form of assessment. In the Performance Task for K.7A, “An Amazing Task,” students create a maze that uses a magnet to push and pull objects through it. In Part 1, students go through the design process to create their maze. Students follow a check-list, which includes “decide what objects and magnets you are going to use with your maze, create a maze, test how a magnet pushes objects through the maze, test how a magnet pulls through the maze, make improvements based on your test, and share your maze.”

Summit K12 Dynamic Science Grade K

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 student's 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 student's needs, in all areas of science based on measures of student progress appropriate for the developmental level. Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension. Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.

Evidence includes but is not limited to:

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

- The materials provide answer keys with the correct answers to the assessments and worksheets. In the Student Learning Resources, the Earth and Space Formative Assessment is automatically graded and provides the correct answer for the students and teachers. For example, one question asks students, "Does this picture show the night sky?" Students either click on a red dot with a No- thumbs down icon or a green dot with a Yes- thumbs up icon. The answer is No, and the materials respond, "Your answer is correct. The correct answer is no."
- The materials provide an answer key to the Study Guide in each lesson. The Rocks Study Guide's Key shows the worksheet and has the correct answers circled. For example, one question states, "The airplane is big in _____." The Key shows answer B circled, size. In the graph section of the review, students are guided to "Draw a rock with a rough texture." The Key states that "Drawings will vary" on the Answer Key.
- Performance tasks include a reflection rubric for students to self-assess and a teacher rubric to grade student answers. For example, in the performance task for K.7B, students create a maze to push magnets through. Students are assessed on their ability to describe how magnets interact with materials, their ability to demonstrate how a magnet can pull objects, and how magnets can push objects. The rubric is separated into Beginning, Developing, and Mastery. For describing how magnets interact with materials, a Beginning student "is not able to describe

how a magnet interacts with materials," a Developing student "incorrectly describes how the magnet interacts with the materials," and a student showing Mastery "describes how a magnet interacts with the materials."
- Some materials include information and/or resources that provide guidance for evaluating student responses. For example, lesson K.13A includes a Diagnostic Assessment Teacher Guide that provides possible 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.

- The materials provide assessment tools that result in data reports teachers can use to track student progress and respond to individual needs. Teachers can generate reports for Concept Boosters and Vocabulary Boosters. The downloadable reports can be generated for individual students or entire classes. Under reports in Content Mastery, a teacher can see first-attempt, vocabulary, and second-attempt scores by TEKS, individually or by class. Teachers can export the report into a spreadsheet and manipulate the data with colors or groupings.
- Teachers can use the "Teacher Reports Dashboard" to view students' scores on the Concept Mastery and Vocabulary Mastery activities. The reports are divided by Reporting Category and broken down by each lesson guide and standard. Teachers can download reports for each Reporting Category onto an Excel spreadsheet. The reports show student names and scores on each standard assessed in the Reporting Category.
- Lesson Guides provide guidance and direction to respond to individual students' needs in the Check for Understanding questions and green highlighted Teacher Notes. For example, the last question in lesson K.7A Magnets asks, "How can this be used to understand the phenomenon?" Teacher guidance states: "Use student responses to identify misconceptions, instructional needs, lingering misconceptions, and to make instructional decisions that meet individual student needs." In the Teacher Note, materials direct teachers to several activities in the Apply and Extend lesson components.

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

- Materials include a Dynamic Science Teacher Reports Dashboard that provides teachers with multiple reports, including E-Books Read, Concept Mastery, Vocabulary Mastery, Usage Reports, Science and Engineering Practices Reports, and Science Literacy Reports. For example, in the E-Books Read report, a checkmark denotes a TEKS-correlated book ready by each student in the class, and the SEPs Vocabulary report shows teachers the percent mastery of vocabulary terms in each lesson by individual students.
- Materials include a Concept Mastery management tool that allows teachers to review and organize student data to differentiate science instruction according to assessment results. In Kindergarten, materials allow teachers to download a *Concept Mastery* student report based on the reporting category from the Teacher Reports Dashboard. In addition, materials allow teachers to download a *Vocabulary Mastery* student report based on the reporting category from the Teacher Reports Dashboard. The computer-generated report color codes based on their performance and can aid teachers in organizing student data and planning differentiated

instruction. These tools and reports can be used by teachers to effectively plan instruction, intervention, and extension activities for all learners.

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

- The materials include a variety of resources for responding to student data: Lesson Guides, E-Books, E-Posters, Vocabulary Activities, Science Lab Investigations, and Science Writing activities. For example, when student data indicates that there is a deficit in understanding vocabulary terms, teachers can access the *Science Literacy Link,* the educator can access a cognate list, and a digital component is included for students.
- Lesson Guides include Teaching Notes that guide teachers in responding to student data after instruction and activities. For example, in K.7A Magnets, students complete an activity sorting pictures of magnetic and non-magnetic objects. The Teaching Note states, “Support student sensemaking with responsive questioning that will help individual students confirm and correct their understanding of how magnets attract some materials and do not attract others.” In K.10A Rocks, students complete a Study Guide worksheet to evaluate their understanding of key concepts and academic vocabulary. The Teaching Note states, “Support student sensemaking with responsive questioning that will help individual students confirm and correct their understanding of how rocks are classified.”

Summit K12 Dynamic Science Grade K

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.	PM
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

Partial Meets | Score 1/2

The materials partially meet the criteria for this indicator. Assessments are somewhat 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 minimal 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.

- The Formative Assessments for each grade level are scientifically accurate. For example, the Formative Assessment for Category 2 Lesson, Magnets, prompts students to view a graphic of two magnets repelling each other. The question states, "The magnetic force is ____," with the answer choices "pushing the magnet" or "pulling the magnet."
- Assessments for each grade level contain items that avoid bias. Questions are presented in a fair and impartial manner with no impact on student performance. For example, in the formative assessment for Category 2 Lesson "Light," students view a variety of images showing examples/nonexamples of light. The images are in a variety of locations.
- The assessment tools are free from content errors. For example, the Vocabulary Assessment for Rocks contains nine questions that accurately describe the properties and uses of rocks. Question 1 shows a picture of different shapes and colors of rocks stacked on top of one another. The choices students have are "Rocks are different colors and sizes." and "The rocks are soft."

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

- The assessments use clear pictures and graphics. For example, the Category 1, Lesson K.6A Formative Assessment uses a picture of colorful candy sorted by color and asks students to complete the statement, "The candies are being classified by:" with the following answer choices, "shape," or "color."

- The assessments use developmentally appropriate pictures and graphics. For example, in kindergarten Category 1, Lesson K.6A Formative Assessment, the materials show a picture of a Kindergarten-age child playing with a hula-hoop. The students are asked, "Is the hula-hoop a blue circle?" with the answer choices of "yes" or "no."

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

- The materials include a Diagnostic Teacher Guide for lessons K6.A, K9.B and K13.A, there is little guidance for the administration of the Diagnostic Assessment. The guidance only states, “Teachers should use the data collected to plan the student learning experience for K13. A and can be used as a post-assessment to show student growth after engaging in the Lesson Guide learning experiences”. This doesn’t provide information to ensure consistent and accurate administration rather this is what to do with the results after the assessment. Words like “can” do not ensure consistency since it gives the user of the materials the option not to do that with the assessment.
- Each Lesson Guide has an Evaluate section at the end, which lists assessment tools for each lesson. There is minimal guidance for how to administer the assessment, and, again, the word “can” is used, which displays the opportunity for inconsistent or inaccurate administration of the assessment tool. For example, in K.7A, the Evaluate section states, “The following assessment tools can be used to assess and monitor student mastery and understanding of key science concepts, Scientific and Engineering Practices (SEPs), Recurring Themes and Processes, and academic vocabulary.” Assessments listed include Assessment 1, Assessment 2, Student Phenomenon Sensemaking Guide, and K.7A Magnets Performance Task.
- Diagnostic Assessments include an Administration section providing limited instructions for test administration. There is no discussion of the length of time for the assessment, when the assessment should occur, or reminders to consistently apply administration protocols across grade levels and/or campuses. For example, the Diagnostic Assessment for K.6A states students should complete questions 1-3 independently and share their answers for questions 4 and 5 with the teacher. Additionally, “teachers should use the data collected to plan the student learning experience with Lesson Guide K.6A.” The instructions also provide the “can” statement, which provides options for how to administer the assessments, which may lead to inconsistent administration. For example, in the Lesson Guide for K.6A, the materials state, “assessment can also be used as a post-assessment to show student growth after engaging in the Lesson Guide Learning experiences.”

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

- Within the Dynamic Science Teacher's Guide, under Course Design, there is guidance for teachers on the accommodation assessment tools titled Accommodations, Accessibility, and Designated Supports. The guide is a presentation that lists the accessibility features and designated supports and then provides screenshots of where these supports are located and which ones can be turned on and off. Some of the accessibility features include bilingual dictionaries, reading assistance for short-constructed response items, a highlighter, a zoom feature, bookmark questions, and an Answer Eliminator for Multiple Choice Items. The designated supports list includes, but is not limited to, a digital calculator, content and language supports, a notepad, and spelling assistance. For example, for the content and language supports, it shows an assessment question with the word *decomposers*. The word *decomposers*

is in a box which indicates there is a text-based pop-up with a definition that will serve as a language support. The guide shows the pop-up box that decomposers relate to "to break down into smaller pieces. Nature's way of recycling."

- The materials include accessibility features such as a notepad, highlighter, zoom feature, bookmark questions, and answer eliminator for MC/MS items. The materials also include designated supports such as calculation aids, content and language supports, individualized structure reminders, spelling assistance, and supplemental aids.
- The formative assessments provide a text-to-speech feature that reads the question and answer choices to students. There is a play button next to each line of text that students can click on to have it read aloud.

Summit K12 Dynamic Science Grade K

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 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.

- Lesson Guides provide teachers with some information on scaffolding instruction for students who have yet to achieve mastery. The lesson guides provide sentence stems to use during various activities to guide student thinking. For example, in Category 4, Lesson “Animal Parts,” students demonstrate their learning through a writing activity. The lesson guide provides teachers with sentence stems, including, “Today, I learned____. In my opinion____. What I know about ____ is ____. I can explain____.”
- According to the Differentiation section in the Teacher’s Guide, the content teams consider vertically aligned scaffolded content “1-2 grade levels below“ when designing new courses. The materials have “a comprehensive on grade level course, but embed the appropriate lower grade scaffolds and extension activities to support differentiation and acceleration.”
- The lesson guides provide a section titled Apply and Extend. This section provides several activities teachers can use to target instruction for students who have not yet achieved mastery. The teacher instructions for this section state that teachers can “embed activities from the Apply and Extend section as instructionally appropriate to support student sensemaking. Activities are designed to be just-in-time learning that is flexible and can be used during small-group instruction, as science centers, as part of a station rotation, or during whole group science time.”
- The teacher materials provide access to the lessons from the previous grade levels that connect to the current grade-level curriculum. Teachers have the ability to assign these lessons to students who have not achieved mastery or need additional support.
- In K.13A Plant Parts, the Lesson Guide includes a variety of scaffolding supports within the Teacher Notes. Scaffolding supports referenced are word wall, sentence stems, student

grouping, access to a dictionary, sentence frames, providing academic vocabulary, responsive questioning, and Socratic seminar.

- Lesson Guides provide Teaching Notes, which include suggestions on how to scaffold activities. For example, in lesson K.7A; Magnets, the teacher leads a discussion in the Check for Understanding section. The Teaching Note states, “Use student responses to identify misconceptions and to make instructional decisions that meet individual student needs. Utilize appropriate activities to respond to individual student needs and provide just-in-time learning acceleration for all.” These activities are found in the Apply and Extend section of the lesson guide.

Materials provide enrichment activities for all levels of learners.

- Materials provide enrichment activities for all levels of learners. Each Lesson Guide includes various Apply/Extend activities for teachers to choose from. For example, in Category 4, Lab; Animals, students identify what animals depend on to survive by drawing pictures of water, food, space, air, and shelter. The Extend activity states, “Have students discuss with their family the basic needs that animals need to survive.”
- The materials include enrichment activities for all levels of learners. In Category 3, Lesson: The Sky, students observe, describe, and illustrate the Sun, Moon, stars, and objects in the sky. After students learn new content through the e-book, teachers can choose from six Apply/Extend activities. Activities include but are not limited to class discussions, handouts, and writing prompts. Two discussion prompts in this section discuss what would happen if there were no moon or stars and if there were no sun or clouds. On one of the handouts, students circle pictures that depict things they can do during the day. On another handout, students count by 1’s to connect the dots and reveal an image of a shooting star. In another activity, students choose a page from the e-book, describe and explain it in their science journal, and orally present their description to the class.
- The materials provide various enrichment activities for each lesson. For example, the Air and Wind lesson has three core vocabulary enrichment activities. The materials suggest that "core vocabulary should be emphasized and taught in context throughout the lesson." In addition, there is a list of activities, including having students repeat the vocabulary words when displayed, using the Vocabulary Boosters (digital flashcards), writing and illustrating the words in their science journal, and the Boost Your Vocabulary Handout.

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

- The teacher materials provide access to the lessons from the previous grade levels that connect to the current grade-level curriculum. Teachers have the ability to assign these lessons to students who have not achieved mastery or need additional support. This can provide valuable just-in-time learning acceleration as these lessons can be presented electronically to students by simply turning them on for the students who need the support.
- The materials provide guidance for teachers for just-in-time learning acceleration for all students. The lesson guides provide teachers with what TEKS students addressed prior to the grade level and then those that come later in a student’s instructional journey. This provides teachers with the vertical alignment that can scaffold teachers' understanding of where students’ strengths and weaknesses are in order to provide appropriate learning acceleration.
- The teacher materials provide scaffolds and guidance for just-in-time learning acceleration for all students. These teacher materials provide access to Vocabulary Boosters, Study Guides, and

TEKS Videos to provide just-in-time learning experiences to support all students. These resources can fill gaps and provide even greater depth of understanding for all students.

- The materials provide a scaffold for just-in-time learning for all students. In Lesson K.10A, Rocks include a Teaching Note that states, “Use student responses to identify misconceptions, instructional needs, lingering misconceptions and to make instructional decisions that meet individual student needs. Utilize appropriate Apply and Extend learning activities to respond to individual student needs and provide just-in-time learning acceleration for all.”

Summit K12 Dynamic Science Grade K

Indicator 7.2

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

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

Meets | Score 2/2

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

Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content. Materials provide flexible grouping (e.g., whole group, small group, partners, one-on-one). Materials include 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.

- The materials include a variety of developmentally appropriate instructional approaches, including but not limited to classroom demonstrations, multimodal texts, collaborative learning activities, and hands-on exploration. The materials provide opportunities for students to share, write, and draw what they have learned. For example, in Category 2, Lesson: Light, teachers conduct a Quick Demo during the Engage portion and then ask, “What would happen if I turn off all the lights in this room?” and turn off all the classroom lights. Then, the teacher asks, “Why do we need to use light at school?” and allows students to respond.
- Materials include collaborative learning activities and hands-on explorations. For example, in Category 4, Lesson: Plant Life Cycle, students work with a partner in an Apply/Extend activity. First, student pairs create a model of a plant life cycle using pictures, clay, construction paper, pipe cleaners, and popsicle sticks. Then, students write a question about their life cycle model and ask for a volunteer to read and answer the question.
- The materials include a variety of appropriate instructional strategies to engage students. Each lesson begins with the Engage section, where teachers ask questions and lead a demonstration

to "activate students' prior knowledge." Then, the teacher explains what they will be learning. For example, in the Day and Night lesson, the teacher asks, "If we stand outside during different times of the day, would the sky always look the same?" and then demonstrates day and night with a flashlight and a globe. The teacher then explains to students that they will learn about "the pattern that can be seen as the sky changes."

- Materials include checks for understanding in each Lesson Guide. The materials in the Day and Night lesson state, "The teacher will discuss the following, allowing students an opportunity to demonstrate their understanding of the content as needed." The curriculum then gives the teacher several questions to ask students.

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

- The materials provide opportunities for students to work in whole group, collaborative groups, with partners, and individually in various activities. The lesson guides provide guidance for students to work in a variety of flexible grouping settings. For example, in Category 3, Lesson: The Sky, students work in multiple settings. The teacher uses the e-book to present new concepts to the class in a whole group setting. Then, the teacher facilitates a class discussion. In a Think-Pair-Share activity, students work with partners to explain and describe a picture from a page in the e-book and present their description to the class. The Apply/Extend section includes activities that students complete independently, such as the Day and Night handouts in the Lesson Guide. In the Review section of the Lesson Guide, students can “complete Study Guide independently, in partners, triads, groups, or whole class.”
- The materials support flexible grouping. Each lesson contains opportunities for whole group, partners, small group, and independent work. In every lesson, the Engage section is completed whole group, with many partner opportunities that follow. For example, in the Seasons lesson, the class discusses the characteristics of each of the four seasons and then participates in a Think-Pair-Share using the E-Book and describing and explaining the picture on one page. Later in the lesson, in the Review section, "Students complete Study Guide independently, in partners, triads, groups, or whole class."
- In the Lesson Guide for K.12A Plants, the materials support a variety of instructional groupings. For example, the materials suggest that content and vocabulary lessons occur in a whole group setting. The Apply/Extend has students Think-Pair-Share with a partner to select a page in the E-Book to describe and explain in their science journals. The Review section suggests that students complete the Study Guide independently, in partners, triads, groups, or whole class. The Lab for K.12A is completed whole group as the teacher shows students pictures of things plants need to survive. Independently, students draw things plants need on the Student Lab Handout. The class discusses how specific plant structures allow plants to meet their needs.

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

- All Lesson Guides include explicit teaching, then opportunities for students to practice applying their knowledge with partners, groups, or independently. The Lesson Guides have these different types of practices as well as guidance for how teachers should facilitate the different types of practices. The Lesson Guides provide examples of feedback or questioning for teachers to use as students work in groups or independently. For example, the K.7A, K.13A and K10.A

Lesson Guide includes "Teaching Notes" following most activities throughout the lessons that provide teachers with considerations to support student sensemaking.

- The materials include various types of instructional practices. For example, in K.7A, Magnets, students "work in groups to investigate if certain objects are attracted to or not attracted to a magnet." The lesson provides clear instructions on what students should do throughout the activity. In this activity, "Students make a prediction for each object, based on physical characteristics, whether it is attracted or not attracted to the magnet. They then test the objects using a magnet and record the results."
- The materials include support for multiple types of practice and provide information on implementation. The K.10A Rocks Lesson Guide provides guidance for teachers to implement multiple types of practices in the Student Investigation: Class Rock Collection section, which includes modeling, guiding, collaborative grouping, and independent activities. This section of the lesson explains the instructional implementation steps: teacher-created bar graph, student classifications, group bar graph completions and discussions, and independently recording observations and data in their individual Phenomenon Sensemaking Guides.

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

- While most pictures show concepts or images of the natural world, the photos that include people are ethnically or otherwise diverse. In the e-Book for K.7A Magnets are images of hands of varying skin color.
- The materials use cartoon images and photographs to represent information in e-books and other materials. There is a diversity of communities represented.
- The materials represent various places. There are several pictures of urban, rural, and suburban areas and pictures of plains, mountains, rivers, lakes, and other geographic diversity.
- The materials contain an image bank within the Vocabulary Mastery section. A variety of racial/ethnic groups, urban and rural scenes, and individuals of various ages are represented in the images. The majority of the images are of science concepts, science materials, or scenes in the natural world.

Summit K12 Dynamic Science Grade K

Indicator 7.3

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

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

Partial Meets | Score 1/2

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

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

Evidence includes but is not limited to:

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

- The materials provide the English Language Proficiency Standards (ELPS) that correlate with each lesson activity. For example, students use prior knowledge and experiences to understand meanings in English in Lesson K.6A, in the second Core Vocabulary Activity listed in the Lesson Guide. The ELPS document provides teachers with guidance on linguistic accommodations for each grade level TEKS. The document includes suggestions for Beginning, Intermediate, Advanced, and Advanced High. For example, the ELPS guide for K.6A states teachers should "use with Core Vocabulary section when you introduce the words." For Beginning, students fill in sentence stems, such as, "I saw a ___. An example of a (soft, rough) object is ____." Advanced High students should "work with a partner to describe an object in the classroom" and "write words in their journals to describe the object."
- Materials embed scaffolds for students, such as visuals, graphic organizers, and anchor charts. The *Concept Teacher Edition* for all categories includes a mini-lesson navigation with key content vocabulary words with definitions and illustrations. In these slides are the key elements of each concept, such as the energy in a food web example with words such as consumer, decomposer, and ecosystem. These activities can be used as accommodations for EB students and varying levels of language proficiency.
- The materials include a Differentiated Science Writing section. The activities are separated by theme, include an Engage video, and are differentiated by levels 1 and 2. Students type their answers to the prompts using the provided sentence stems. For example, in the "The Night Sky" theme, students first watch a video introducing the concepts discussed in the writing prompts.

Then, students select a differentiated writing prompt. Level 1 Prompt 1 is, “Describe the moon and the sun. Begin your answer with ‘The moon…’ “The Level 2 prompt 2 is, “Describe the spiral galaxy. Begin your answer with ‘The spiral galaxy…’”

- The materials provide guidance for linguistic support. In K.13A Plant Parts, the Lesson Guide includes a Teaching Note to support sensemaking with Emergent Bilingual students. Prompting teachers to: provide sentence frames and appropriate academic vocabulary to anchor writing, group emerging bilingual with students at a higher level of language acquisition, pull a small group of students and use a shared pen strategy as they write, and provide access to a bilingual dictionary.

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

- Materials partially encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English by providing information on dual-language connections and Spanish cognates. Materials primarily focus on making Spanish-English connections in line with a dual-language framework. While some student-facing materials are provided in other languages, the Lesson Guides and other teacher-facing materials lack guidance for strategically using students’ first language through such strategies as having students speak or write about science in their first language as a scaffold for their English language development.
- The “Dual Language Connections” section in the *Summit K12 Teacher’s Guide* outlines the research foundations and ways the program fits a dual-language framework by designing materials in both English and Spanish rather than translating or transadapting materials.
- The Science Writing component includes a Science Cognates section with “context images and sentences, professionally recorded audio in both English and Spanish and the ability for students to speak and record themselves repeating the context sentences.” Students view an image, listen to the context sentence first in Spanish and then in English, and record themselves reading it. For example, in Set 1 of Matter and Energy, students view a picture of a girl using a camera, the word “camera” in Spanish, and the sentence, “Uso una cámara para tomar una foto.” Then, students record themselves reading the sentence in Spanish. On the next page, students view the same image, read the word “camera” in English, and listen to the sentence, “I use a camera to take a picture.” Then, students record themselves reading the sentence in English.

Summit K12 Dynamic Science Grade K

Indicator 7.4

Materials guide fostering connections between home and school.

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

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials 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 to help them reinforce student learning and development. Materials include information to guide teacher communications with caregivers.

Evidence includes but is not limited to:

Materials provide information for teachers to share with students and caregivers about the design of the program.

- The materials include a “Student Dynamic Science Orientation Guide.” This resource presents a scripted slideshow introducing students to the different components of the materials included in the program. Students learn to access E-Books, Vocabulary, I-Study Guides, and Formative Assessments. Materials also contain a Science Writing section that introduces students to the Vocabulary Mastery, Science Writing, and Science Literacy sections. Finally, materials include the Scientific and Engineering Practices (SEPs) section. At the end of the presentation, materials prompt students to practice logging into their accounts to practice using the materials.
- The materials include a Parent/Guardian letter, which teachers “may send home to the guardians or guardians of your students to introduce them to the Summit K12 Science resources.” The letter explains the online components available at home, including “lesson videos, digital flashcards, study guides, animations, and assessments.” It includes a step-by-step directions guide to access the program and provides an overview and information on how guardians can help their children log in at home. Guardians learn detailed information about Science Animations, Concept Mastery, Science Literacy and Vocabulary Mastery, and the Scientific and Engineering Practices section on the overview page. The materials also include the same letter and overview in Spanish.

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

- The materials provide resources for caregivers to help reinforce student learning and development. For example, the materials include a family letter in English and Spanish

explaining the materials with information on how to access the materials digitally. There is evidence of letters or other communication to send home at the beginning of each lesson explaining what students will be learning and/or how to support students at home with the new materials.

- Materials include a Home School Connection document that includes vocabulary strategies, field investigations, science literacy, and studying the TEKS at-home activities for guardians/caregivers to complete with students. The document also includes e-Posters with content and vocabulary for each reporting category. For example, the Home School Connection document explains to caregivers that they can accelerate the learning of the Science content with their students by using activities listed in the document. The activities include Taking a picture walk with your child while allowing our child to tell you about the images on the page, reading the page together, looking around your home or outside to find things that are similar to the pictures on the page, writing sentences with the vocabulary words, and students recreating the page with their images.
- Each Lesson Guide has a Home Connection section, providing students with an activity relating to what they have learned in class to do with an adult at home. For example, in Category 2, Lesson: Magnets, the Lesson Guide states, “You have been learning about forces and how forces cause changes in motion and position in everyday life. With an adult, you will describe and predict how a magnet interacts with (affects) different materials and how the magnet can be used to push or pull different objects. In your science journal, write an example of things that a magnet can move.”

Materials include information to guide teacher communications with caregivers.

- The *Dynamic Teacher Guide* includes a section for a generic letter format and information the school can use to communicate to caregivers the program's purpose and how to access its online features. This resource also includes a Parent/ Guardian letter detailing the benefits of the program and basic components of the program. The "Connections to Home" section provides suggestions on how to establish a relationship by incorporating "Field Investigations at Home." By providing these comprehensive resources, the materials aim to foster ongoing communication and partnership between teachers, caregivers, and students while facilitating the sharing of progress updates.
- The Teacher’s Guide Home to School Connection link includes teacher guidance and support for clear communication of the TEKS required for student mastery at grade level. The materials offer a letter with ideas of how to accelerate learning, a brief overview of the big ideas of the TEKS, and visuals of the TEKS with Vocabulary Boosters. The information to guide teacher communications with caregivers can be found in the Teacher- Getting Started link in the Teacher’s Guide. This guide gives teachers a sequence of orientation to the material’s resources.
- The materials include a “Parent/Guardian Letter” in the *Summit K12 Teacher’s Guide* that provides information to guide teacher communications with caregivers. The instructions state, “The attached letter is an example of one that you may send home to the parents or caregivers of your students to introduce them to the [program] K12 Science resources. We suggest sending the letter below, as well as instructions for how to access the program from home, through the district’s LMS or portal.”

Summit K12 Dynamic Science Grade K

Indicator 8.1

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

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

Partial Meets | Score 1/2

The materials partially meet the criteria for this indicator. Materials partially 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 some clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts. Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.

Evidence includes but is not limited to:

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

- The materials include a Year-at-a-Glance Pacing Guide, which breaks the resource into four reporting categories, "Matter and Its Properties," "Force, Motion, and Energy," "Earth and Space," and "Organisms and Environments." It includes the number of Texas Essential Knowledge and Skills (TEKS) covered, the estimated time allotment for each category, and the order in which TEKS are presented for the entire year. The Kinder Pacing Guide breaks the lessons down into days to assist with planning instruction.
- The Dynamic Science Teacher's Guide includes a TEKS-aligned scope and sequence. Each lesson on the scope and sequence is labeled with the corresponding TEKS. For example, Reporting Category 1 covers standard K.6A. The lesson title is Properties of Objects, which the program suggests completing over fifteen days.

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

- The Dynamic Science Teacher's Guide includes a document called the TEKS-SEPs-RTCs Crosswalk that shows where the scientific and engineering practices (SEPs) and recurring themes and concepts(RTCs) are covered in each category. While this document shows which SEPs and RTCs are covered in each category, it does not give clarity in understanding how activities and experiences connect.

- Teacher materials provide some guidance for teachers to facilitate student-made connections to the RTCs. For example, Category 2 is Force, Motion, and Energy, and the first lesson is Magnets. Within the lesson guide, guidance is provided through the 5-E model. In the Engage section, guidance is given to "activate students' prior knowledge" by listing a series of questions, such as "Do you know what a magnet is? What can it do?" In the Teach and Discuss section, guidance is provided in a bulleted, step-by-step format instructing how to present each concept. For example, to teach the concept of "Push," the bulleted list includes, "introduce the word push, a push is a force that moves an object away; when a magnet's north pole is near the north pole of another magnet, they will push away from each other, when a magnet's south pole in near the south pole of another magnet, they will push away from each other." After teaching and discussing portions of the lessons, teachers are given guidance in the Apply/Extend portion to facilitate an activity tied back to the SEPs. For example, in this Magnets lesson, students sort images into a graphic organizer of magnetic and non-magnetic objects. This is directly linked to the SEP of using tools to observe, measure, test, and compare.
- The lesson plans include an overview of the SEPs and RTCs covered in each lesson. While materials provide this and other teacher guidance for facilitating connections across core concepts in the grade level, materials lack such guidance for facilitating connections across SEPs and RTCs. Additionally, the teacher guidance provides engagement questions to facilitate students making connections within the lesson but not to lessons that have been or will be taught.
- For example, in K.13A Plant Parts, the teacher activates students' prior knowledge. The teacher shows two house plants and asks students to share what they know about plants. "How are these plants the same?" "How are they different?" "What are some of the different parts of the plant?"
- Additionally, in Lesson Guide K.9B, materials provide the following teacher guidance for facilitating connections across core concepts: "TEKS K. 9B is connected to K.9A because students learned that the Sun is a star that provides light and heat to Earth. Students also learned that we can observe the Moon, stars, and clouds in the sky." During the Teach and Discuss portion of the lesson, materials guide teachers to facilitate such student-made connections as "Sky during the day: The Sun is a star that provides Earth with light and heat. Sky during the night: During the night, we may observe the Moon, stars, and clouds in the sky."

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

- The materials provide spiraling, reviewing, and practicing the SEPs and RTCs. The materials provide a TEKS-SEPs-RTCs Crosswalk document that shows the spiraling of these TEKS. For example, the SEP TEKS K.1A is found in six labs and two lessons over the course of the year.
- Teachers can assign E-Book readings, vocabulary activities, and study guide activities to provide spiraling of previously taught content to support mastery and retention.
- Lesson plans spiral concepts taught in previous lessons by providing opportunities for students to activate prior knowledge during the Engage component and revisit concepts in the Evaluate component. For example, in Category 2, Magnets lesson, students learn about magnets, push, and pull in the lesson titled Magnets. First, students learn about objects that are magnetic and not magnetic. Students then discuss the terms "push" and "pull." Once students have an understanding of those words, students use magnets to push and pull different magnetic objects.

Summit K12 Dynamic Science Grade K

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

Partial Meets | Score 1/2

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

Materials provide teacher guidance and recommendations for the 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, but they do not explain the standards within the grade level context. Materials partially include a comprehensive list of all equipment and supplies needed to support instructional activities. Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.

Evidence includes, but is not limited to:

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

- The materials include a Teacher's Guide that provides information about the different components of the program. Section titles include Course Design, Teaching and Learning, Scientific and Engineering Practices (SEPs), Science Literacy-Vocabulary Mastery, Additional Resources, and TEA Resources. Materials also indicate that teachers can access an online asynchronous training course.
- The Lesson Guide and Teacher Inquiry Lab materials provide teacher guidance and recommendations for using digital, print, and optional resources. Resources include E-Poster, E-Book, Study Guides, and Vocabulary Boosters, including Digital Flashcards, Flashcard Cut-outs, and Handouts. For example, the Classify Properties of Objects materials list includes E-Poster, E-Book, Study Guide, Texas Essential Knowledge and Skills (TEKS), Assessment, Vocabulary Boosters, and Digital Flashcards under Digital Resources. The Engage portion of the lesson guides the teacher to present the E-Poster as an overview of what students will be learning in this lesson.

- Materials are designed to allow flexibility for use. The materials include a scope and sequence that breaks down each category into Kinder TEKS Pacing Guides, arranged by reporting category. Each guide includes a list of activities, the time allotted for each, and a suggested number of instructional days. The materials state that these guides "can be adapted for teaching the TEKS in any preferred order."
- Lesson guides provide teacher guidance for the use of all materials. Within the lesson guide, teachers find scripted questioning, instructions on how to use the e-book to present all new concepts, scripts to use as they use the e-book, misconceptions, apply/extend activities, and connections to writing activities. For example, in the Category 2 Lesson, Light, the Teacher's Guide prompts teachers to use the e-book to present all the concepts, including light, light source, and amount of light. The guide provides teachers with prompts to read as they present the e-book. The materials guide teachers to "introduce the word light," and state that "light makes things visible," and state "objects can only be seen when a light source is present." Additionally, the lesson guide for K.8B provides teacher guidance for support and scaffolds in the "Connect to Writing" portion of the lesson. Materials direct the teacher as follows "Have students write and/or draw a sentence with the core vocabulary words" and provide two sentence stems to use with students.

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

- Materials include Lesson Guides and Teacher Inquiry Labs with standards correlations for lessons, activities, and resources. The scope and sequence in the Kinder Pacing Document includes a list of standards taught throughout the school year and includes in which Reporting Category each standard is introduced. The Kinder TEKS Pacing Guide, in the same document, divides lessons into sections, including information on cross-curricular connections. For example, Lesson Guides include "connect to" activities that embed cross-content correlation to English language arts, math, art, and music standards.
- The Connect to Writing activity in Reporting Category 3 Lesson, Weather Changes, instructs the teacher to have students write and/or draw different types of weather they observe in their science journal. The teacher asks, "What can happen if it is snowing?" The class has a discussion about what can happen. Students write and/or draw a picture in their science journals outlining problems they can encounter. The teacher asks, "What solutions could you have to your problem?" Students then write and/or draw a picture in their science journal of their solution. The activity also includes sentence stems. For example, "We play inside on __ days." "When it is __, do not forget your scarf and mittens." In the same lesson, the Connect to Math section includes two worksheets. The students count the raindrops and trace the numbers 1-9. The second worksheet is a color-by-number page in which students color a picture of the sun using numbers 1-4.
- While the Lesson Guides provide teachers with cross-curricular connections, the guides do not list specific standards to identify or explain how these connections correlate across content. For example, in Category 3, Lesson The Sky, the lesson guide lists cross-curricular connections to writing and art. In the writing connection, students write and draw something they can do during the day and night and illustrate objects in the sky to support their writing. Additionally, the Plants lesson guide lists cross-curricular connections to math and includes two handouts with the instructions" "Match the Numbers" and "Count the number of petals on the ten frames," "Color the Tulips," and "Students draw a picture of a plant with petals and leaves. Then count and write the number of each." However, there is no guidance for teachers explaining

how or where these activities correlate to other content standards. The materials do not include support for teachers in making the cross-content connections by guiding them to connect to the learning from other content areas; they only list TEKS and provide handouts.

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

- The Teacher's Guide includes a "Materials Lists and Lab Inquiry Kits" resource within the Scientific and Engineering Practices section, which lists materials for all lab investigations in the grade level. Teachers also can access guidance documents for lessons and lab investigations by reporting categories that include lists of necessary resources and materials. However, it should be noted that while materials include this chart of materials needed for lab investigations across the year, materials do not include a comprehensive list of equipment and supplies commensurate with TEA recommendations for Kindergarten.
- The materials contain a list of equipment and supplies necessary for a particular lesson, including the engagement piece, investigative lab, and extension. Inside each Lesson Guide is a materials list that contains all the materials needed for each activity within the lesson, including digital, print, and optional lab materials. For example, in Category 2: Force Motion and Energy, Lesson: Magnets, the materials list includes magnets (different types if possible) and various materials (magnetic and nonmagnetic).
- Grade K materials also include individual lists of equipment and support for the inquiry lab investigation within each lesson guide. For example, the Teacher/Student Inquiry Lab section of Category 3: Earth and Space, Lesson "Day and Night" materials list includes a "flashlight, globe, and a sticker to mark where we are located on the globe."

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

- The materials include a link to a Science Safety Contract, which students read with a parent or guardian. This document provides safety statements that outline safety rules and appropriate student behaviors. For example, item five of the Science Safety Contract states, "I agree to keep my area clean during and after laboratory investigations." The safety contract is the same for grades Kindergarten through 2.
- Student Inquiry Labs include safety statements and reminders related to student behaviors and material use. Category 4: Organisms and Environments, Lesson: Animals includes an inquiry lab with the safety instructions that read, "All materials used are common and non-hazardous. Please make sure students wash their hands after the lesson is complete. As a class, discuss, describe and identify safe practices that students will use during the lab." The teacher says, "We will describe and identify what safe practices we will use during this lab." In this lab, the teacher shows students pictures of things that animals depend on, such as water, food, space, air, and shelter. The students record what animals need to survive on their lab sheets. The class engages in a discussion about how different animals survive and what structures allow animals to meet their needs.
- The "Scientific and Engineering Practices (SEPs) E-Book" is provided to support teachers in introducing the SEPs to students. It explains scientific and engineering practices, themes, concepts, and cycles, phenomena, senses, using data, safety, science tools, models, defines STEM, and science. This lesson is twenty-nine slides long; you cannot easily navigate to skip slides. Pages 13 and 14 mention safety during investigations, where students learn about

goggles, first aid kits, and gloves. The e-book is used in grades K-2 and does not change as students advance grade levels.

Summit K12 Dynamic Science Grade K

Indicator 8.3

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials provide a Kinder Pacing Guide located in the Teacher's Guide section of the website. This document provides teachers with the Year-at-a-Glance, Scope and Sequence, Pacing Guide, and individual Texas Essential Knowledge and Skills (TEKS) Pacing Guides. All guides are based on 160 days; however, it gives guidance for additional scheduling considerations. "Only 160 days have been planned out of the 180 school days, though this course includes more than enough material to cover the full 180 days of instruction. This was intended to account for beginning-of-year logistics, district and state testing, field trips, or any other interruptions to the daily instruction cycle. Pacing should be adjusted according to student assessment data and district instructional priorities."
- Within the Kinder Pacing Guide, the TEKS Pacing Guide lists each section of the lesson, based on the 5E Model, and the activities within each section. The guide gives guidance on the number of days and the time allotment per day for each activity. For example, in the Properties of Objects Lesson, the Teach and Discuss section has three components: Instruction and Classroom Discussion, Check for Understanding, and Relevancy. Under the Instruction and Classroom Discussion, the materials list seven options, such as Properties, Shape, Color, Texture, Materials, and Classify. Each option is suggested to take two days, thirty minutes a day, with the exception of Classify, which is suggested to take three days, thirty minutes a day. The Check for Understanding is suggested to take 15 minutes, and the Relevancy section is ten minutes.

Summit K12 Dynamic Science Grade K

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

- Materials guide strategic implementation without disrupting the sequence of content and allowing for flexibility to meet student needs and district priorities. The Summit K12 Pacing Document contains the following to guide implementation: Year-at-a-Glance Pacing Document, Scope and Sequence, Pacing Guide, and Individual TEKS Pacing Guides. The document overview states, “The Summit K12 pacing materials are intended to assist educators in planning and organizing science curriculum according to the Texas Essential Knowledge and Skills for Kinder. This guide provides a comprehensive timeline and framework based on state standards and serves as an optional resource that teachers and administrators may use in addition to or in support of any district-provided pacing guidelines.”
- It should be noted that the Summit K12 Pacing Document also states that materials “can be adapted for teaching the TEKS in any preferred order or according to a district-provided Scope and Sequence." Materials indicate that grade-level content is taught according to the reporting categories. For example, the Scope and Sequence gives a table outlining the TEKS and suggested days for each of the four reporting categories in Grade K. Similarly, the Pacing Guide gives a table of content arranged by reporting category, with a suggested number of days for each TEKS within the category.
- The materials suggest "introducing the fundamental concepts and principles of science prior to beginning instruction." Teachers use the Scientific and Engineering Practices (SEPs) section of the website to locate resources that can be used at the teacher's discretion. These resources are aligned to Kindergarten SEPs and include E-Book lessons and Vocabulary Boosters that will aid in teaching and practicing these skills. Some skills taught in this section include but are not limited to "analyze and interpret data," and "ask questions, define problems, and use scientific processes."
- The materials strategically delineate the order of lessons to ensure students learn about precursor concepts first. In the Kindergarten materials, students learn about magnetic and not magnetic objects, discuss “push” and “pull,” and then use magnets to push and pull magnetic objects.

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

- The Scope and Sequence and Pacing Guide indicate that the materials are flexible and will be completed in 160 days. According to the introduction of the Kinder Pacing Document, "the guide provides a comprehensive timeline and framework based on state standards and serves as an optional resource that teachers and administrators may use in addition to or in support of any district-provided pacing guidelines."
- The Year-at-a-Glance provides teachers with the estimated time allotment in days for each Reporting Category. In Kindergarten, Category 1 is fifteen days, Category 2 is twenty-four days, Category 3 is sixty-six days, and Category 4 is fifty-five days, for a total of 160 days. The document states the materials were designed to cover 160 "to account for beginning of year logistics, district and state testing, field trips, or any other interruptions to the daily cycle of instruction.” The materials also state that the course includes "more than enough materials to cover the full 180 days of instruction.”

Summit K12 Dynamic Science Grade K

Indicator 9.1

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

1	Materials include an appropriate amount of white space and a design that supports and does not distract from student learning.	Yes
2	Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.	Yes
3	Materials include digital components that are free of technical errors.	No

Not Scored

The visual design of materials is somewhat 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 do not include digital components that are free of technical errors.

Evidence includes but is not limited to:

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

- The materials include an appropriate amount of white space and an overall design that does not distract from student learning. Students utilize both digital resources and handouts. Digital resources include but are not limited to e-books, Vocabulary practice, I-Study Guides, and Formative Assessments. Handouts include activities in the Lesson Guides and student lab worksheets. For example, in Category 2 Lesson, Light, students complete a handout where they sort images of natural and artificial light. The design of the handout does not distract from student learning. The images students sort are clear and easy to understand. The table where students sort the images is marked with headings and is easy for students to read. There is an appropriate space for students to sort pictures on the table.
- The digital Vocabulary activities include an appropriate amount of white space and have an overall design that does not distract from student learning. For example, in Category 2 Lesson Magnets, question one shows a young girl pushing another girl on a swing. The answer choices read, “The girl is pushing the wagon. The girl is pushing her friend.” Each page includes a photograph of the question, two answer choices, and boxes for students to click to select their answers. The photographs are clear, easy to understand, and relate to the content. Answer choices are written in a font that is clear and big enough for students to read. Students also have the option to click a play button to have the question read to them.
- Materials in the kindergarten student learning digital resources include an appropriate amount of white space and a design that supports and does not distract from student learning. For example, the Vocabulary activities, I-Study Guides, and Formative Assessments for each lesson include one question/prompt per page of the assignment.

Summit K12 Dynamic Science Grade K

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

- The materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. The materials include pictures and age-appropriate graphics on student handouts, e-books and e-posters, Vocabulary flashcards, and in all digital student activities. For example, the e-book for Category 2 Lesson, Light Travels, uses age-appropriate pictures and graphics that support student learning. The photographs and graphics are clear and easy to read. The text on each page is in a readable font and is big enough for teachers and students to read. On page 3, titled “Transparent,” students view a graphic of a flashlight shining through an object, an image of someone pouring water into a glass, and an image of plastic wrap. The text on the page describes the images and graphics and says, “When a material is transparent, light can travel through easily. Light travels through transparent objects.”
- Materials use age-appropriate and content-appropriate visuals that support student learning. The E-Posters use real photographs or colorful drawings to convey concepts and serve as visual support to topic vocabulary. For example, the Category 4, Young Plant, E-Poster shows one photograph of a small sprout labeled as a “seedling” and another photo of a flowering plant labeled “resemble.” Next are two drawings of similar-looking plants; one is labeled “young plant” and one “parent plant’.
- Materials in the kindergarten student learning digital resources embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. For example, all Category Four: Organisms and Environments Formative Assessment questions include two answer choices for each question. Many of these answer choices are a red thumbs-down graphic labeled with the word "no" and a green thumbs-up graphic labeled with the word "yes."

Materials include digital components that are free of technical errors.

- While materials include digital components that are mostly free from technical errors, there is some inconsistency in the titles of lessons. In some instances, the categories are called Reporting Categories, and in others, they are only named Categories. In Kindergarten, Category 1, The Category page names the lesson as "Matter and its Properties," however, the title on the Lesson Guide is Classify Properties of Objects.
- Additionally, in the Student Resources for Category 4: Organisms and Environments Plants I-Study Guide, one question asks students to "Tap on all the plant’s basic needs." Each of the pictures includes a label. This question’s labels are in Spanish using the words "agua", "dulce", "espacio", "suelo/tierra" and "luz" instead of the correct English word for the plant needs.

Summit K12 Dynamic Science Grade K

Indicator 9.2

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

1	Materials integrate digital technology and tools that support student learning and engagement.	Yes
2	Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content.	Yes
3	Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate.	No
4	Materials integrate digital technology that is compatible with a variety of learning management systems.	Yes

Not Scored

Materials are somewhat 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 do not integrate digital technology that provides opportunities for teachers and/or students to collaborate. Materials integrate digital technology that is compatible with a variety of learning management systems.

Evidence includes but is not limited to:

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

- The materials integrate digital technology and tools that support student learning and engagement. Each Lesson Guide includes an E-Book, Interactive Vocabulary Practice, an I-Study Guide, and an online Formative Assessment. The materials also include Differentiated Science Writing activities, which have an Engage Video and writing prompts. The digital components include embedded tools, such as variable font size, text-to-speech, note-taking, highlighting, and strikethroughs. For example, in the I-Study Guide for Magnets in Category 2, students push a play button to hear prompts read aloud. Students also have the option to use the highlighting tool to highlight important words or sentences, the note-taking tool to type notes, and a magnifying tool that makes text larger or smaller.
- The embedded technology within the student materials supports the print and does not replace it.

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

- The materials integrate digital technology that supports student engagement with grade-level content. For example, in The Night Sky Differentiated Science Writing activity, students view a video clip about lights in the sky. Then, answer two questions about the content learned in the

video by typing and submitting their answers. The Level 1 questions are, “What does a telescope do? Describe the moon and the sun.”

- The student materials provide digital tools for students to review and answer questions about Science and Engineering Practices (SEPs), Recurring Themes and Concepts (RTCs), and grade-level content through Differentiated Science Writing videos and written response prompts, Vocabulary Mastery Practice questions and answers, Science and Engineering Practice vocabulary image observation and statement activities. However, activities are limited to short written responses and multiple-choice questions and statements.

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

- The materials do not integrate digital technology that provides opportunities for teachers and/or students to collaborate. All digital activities are completed independently and submitted by students for teachers to view. Teachers have the ability to view student responses but are not able to provide feedback on the digital platform. Students do not have the ability to view their peers' responses.
- There is no evidence of a digital collaboration tool that provides teachers and/or students with opportunities to collaborate. There are face-to-face collaboration opportunities within the unit lessons. For example, in The Sun, the Earth, and the Moon Lesson Guide, the vocabulary section describes a Graphic activity, "In groups, students will draw and fill in the graphic with the word Sun in the center. In the circles, include all the vocabulary words and how each word is related to the Sun. Groups will present their graphics to the class."

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

- Materials integrate digital technology that is compatible with a variety of learning management systems. For example, the Kinder Dynamic Science Teacher's Guide links a sample Parent/Guardian letter that states, "Since the Summit K12 program is web-based, students can access it from any computer tablet with an internet connection." The support link for Onboarding and Integrations states, "Summit K12 provides an online supplemental curriculum that is 100% web-based (HTML5) and requires no special software installations" and cautions users that "while Android Tablets and Phones are able to access our LMS on a web browser, not all features are fully supported."
- The Dynamic Science Teacher's Guide links the Teacher- Getting Started document and states that Summit K12 supports all major SSO tools like Clever, Classlink, Rapid Identity, and others and supports access to all major district LMS and SIS platforms through one of the SSO solutions.

Summit K12 Dynamic Science Grade K

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.

- The materials provide information that identifies how online and digital components align with grade-level science knowledge and skills. The Concept Mastery section lists the digital components along with the standard they align with.
    - For example, in the Concept Mastery section for Category 2, teachers can see the Texas Essential Knowledge and Skills (TEKS) for each lesson. The Magnets lesson covers K.7A, the Light lesson covers K.8A, and the Light Travels lesson covers K.8B.
- Digital components align with the science knowledge and skills progression.
    - For example, in the Content Mastery Vocabulary assessment for the Rocks unit, the word *texture* is assessed in the context of a soft carpet.
    - For example, in question 8, students choose between two answer choices: "The balls are classified by size" and "The candy is being classified by color." The picture is clearly of candy being classified by color.

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

- The materials provide teacher guidance for using embedded technology to support and enhance student learning.

- For example, the Online Course Site Map guides teachers on using the online features and where and when to access them to facilitate student learning.
- For example, the Teacher Getting Started Guide includes instructions on enrolling students, using single sign-on (SSO) for student access, and pushing the Summit K12 app onto iPads.
- For example, the Student Getting Started Guide supports teachers in introducing the digital technology components of the Summit K12 program.

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

- The materials include a Parent/Guardian Letter explaining how to use Summit K12 at home. The letter includes embedded screenshots as visuals to help parents and caregivers support student engagement with digital technology and online components. It also briefly explains the work students will mostly do at home, including Science Animations, Concept Mastery, and Science Literacy and Vocabulary Mastery.