Green Ninja Middle School Science Grade 6

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Executive Summary

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

Grade	TEKS Student %	TEKS Teacher %	ELPS Student %	ELPS Teacher %
Grade 6	100%	100%	100%	100%
Grade 7	100%	100%	100%	100%
Grade 8	100%	100%	100%	100%

Section 2. Instructional Anchor

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

Section 3. Knowledge Coherence

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

Section 4. Productive Struggle

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

Section 5. Evidence-Based Reasoning and Communicating

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

Section 6. Progress Monitoring

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

Green Ninja Middle School Science Grade 6

- The materials include guidance that explains how to analyze and respond to data from assessment tools.
- The assessments are clear and easy to understand.

Section 7. Supports for All Learners

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

Section 8. Implementation Supports

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

Section 9. Design Features

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

Section 10. Additional Information

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

Green Ninja Middle School Science Grade 6

Indicator 2.1

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials provide multiple opportunities to develop, practice, and demonstrate mastery of grade-level appropriate scientific practices as outlined in the TEKS. Each unit contains a culminating project where students must show mastery of the content learned.
- For example, in Grade 6, Lesson Field Research Part IV, there is an activity that asks students to "work with a partner. Encourage scientific discourse; just as scientists discuss their experience, data, and observations, students must share using academic language and scientific vocabulary. Then, students change partners and summarize their answers. Encourage them to use their own words rather than reading from the worksheet to reinforce the practice of peer-to-peer dialogue. Encourage the listener to ask clarifying questions and to challenge the assumptions."

- Another example, Unit 1 Minerals, is structured to build on knowledge gained during each lesson on minerals to allow development and practice of the topic. The Unit 1 Challenge Science Method Objectives states, "Research and identify the material resources used in a smartphone. Develop models of where and how these resources form through geologic processes."

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

- The materials provide multiple opportunities to use recurring themes in making connections between and within overarching concepts. Recurring themes are reintroduced throughout the curriculum. Teachers can identify these opportunities marked in green throughout the multiple lessons.
- For example, in Lesson 2.3, Tribes and Trade Routes, the green call-out box showcases RTC connections of cause and effect, including an example of a graphic organizer. The call-out box states, "This graphic organizer illustrates some important aspects of both Cause and Effect and the nature of science. Scientists often consider several possible causes for an effect that they observe. Then they investigate each of those possible causes. In the end, they may rule out some of their original ideas. They might also find that multiple factors cause or influence the effect."
- The materials are systematically organized around a theme, explained by a storyline. Each Unit within the grade level begins with a challenge, emphasizes scientific methods, and ends with a culminating experience, all represented on a unique roadmap for the unit referenced throughout the lesson plans.le, Lesson 2.10 Earth Systems Deep Dive Part I, students are asked to participate in a game, "Emphasizing Systems and Systems Models: The Carbon Command game is an excellent example of interacting systems, with the atmosphere, ocean, land surface, and ice interacting. Ask students to start thinking about the idea of systems, what different systems exist in the game, and how these different systems interact."

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

- The materials are systematically (methodical fixed plan) designed to develop and build student skills and content knowledge using phenomena appropriate to the grade level as outlined in the TEKS. Each Unit is designed in a way that each lesson builds upon the knowledge from the previous lesson, not only in content but also in science and engineering skills and the understanding of the recurring themes and concepts.
- Materials contain a Culminating Experience Teacher Guide that explains, describes, and makes connections between the science and engineering principles and conceptual understanding. This guide contains a Unit Introduction, Roadmap, and Thought Starters designed to help teachers develop students' content knowledge and skills.
- For example, in each lesson, there is a Google Slide deck that is complete with teacher notes and information for when to emphasize the importance of the grade-level content.

Green Ninja Middle School Science Grade 6

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

- The materials give students multiple opportunities to plan and conduct classroom and field investigations. Students are engaged in problem-solving and make connections across disciplines to develop an understanding of science concepts. Materials contain several differentiated options for student exploration of science concepts.
- For example, in Unit 2, students take on the role of an ecologist and develop questions to explore during a field investigation. They use this and data from other investigations in the unit to write a letter of support to an ecosystem manager as a culminating experience.
- In Grade 6, Lesson 3.12 Investigating Chemical Changes Part I, Students collect and analyze data on the properties of substances before and after the interaction to determine if a chemical change occurred.

Green Ninja Middle School Science Grade 6

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

Meets | Score 4/4

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

Materials embed phenomena and problems across lessons to support students to 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 to 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 use phenomena as a central anchor that drives student learning across grade-level content in each discipline (earth/space, life, physical science). Materials drive knowledge-building for students. For example, each Unit is set up with a Unit Storyline that presents the content to students in an engaging phenomena-driven manner.
- The materials embed engineering problems with opportunities for students to develop, evaluate and revise their thinking to uncover phenomena and define/solve problems. For example, in Unit 3, Chapter 1, students explore the phenomenon of trash not going away through the first six lessons of the chapter. The students' research allows them to propose solutions to the problem of landfills filling up with trash.
- Materials use phenomena as a central anchor that drives student learning. For example, Chapter 1, The Story of Trash, uses the phenomena Trash Doesn't Go Away to drive student learning for the rest of the Unit's lessons and culminating project.

Green Ninja Middle School Science Grade 6

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

- Materials accommodate different entry points to the learning of phenomena and engineering problems through the use of text, video, hands-on activities, and real-world applications. For example, Unit 2 Ecosystems Chapter 1 Protecting Ecosystems Classroom Slides include text, video, multiple images, and a launch to create Ecosystems Notebook Covers.
- The materials provide opportunities to leverage students' prior knowledge and experiences related to phenomena and engineering problems, connecting to previous content knowledge and outside-of-school experiences. For example, in Unit 3, Chapter 1, Lesson 3.1, students are asked to connect the chapter phenomena to the relevance at home and school. For example, in Lesson 1.9, Investigating the Rock Cycle Part I, students use the phenomena of Some Rocks Float to draw on prior experiences and knowledge learned in the previous unit (Unit 1 Minerals).

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

- The materials clearly outline the scientific concepts and learning goals behind each phenomenon and engineering problem.
- In each lesson, there is a snapshot of the lesson goals and objectives as they relate to the phenomenon. For example, in Lesson 1.3, What is Inside a Smartphone, the lesson plan section titled Teacher Prep states that the use of real-world objects engages students.
- Student learning goals are indicated in the lesson plan, where the phenomenon is introduced with a teacher guide for activities or discussion for further exploration of the content associated with it. For example, this can be found in the provided Culminating Experience Teacher Guide, which outlines the learning goals and scientific concepts covered in each unit's Culminating Experience, which often contains an engineering problem.
- Materials use phenomenon-based instruction and engineering design problems throughout the curriculum. The specific phenomenon within each chapter is provided on the Getting Started page for each chapter. For example, for teacher support, materials provide guidance on how to use the phenomenon by including a lesson plan and/or in the Background for Teachers sections found in certain lessons.

Green Ninja Middle School Science Grade 6

Indicator 3.1

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

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

Meets | Score 6/6

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

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

Evidence includes but is not limited to:

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

- Materials connect new learning goals to previous and future learning within and across grade levels. For example, in the grade 6 unit, Earth and Space, materials include a Roadmap that explains the progression of learning throughout the unit.
- Materials present content in a way that builds in complexity within and across units and grade levels. For example, materials provide a Unit Overview that shows how each unit connects to other units within the series. Additionally, the Unit Overviews provide a Storyline that shows how lessons build and connect across the unit with specific information for each lesson, including a lesson question, phenomenon or design challenge, what students do and figure out, and how they end up representing what they figure out in the Culminating Experience.
- Materials support teachers in understanding the vertical alignment of TEKS and SEP. For example, in Lesson 1.4, Researching Smartphone Materials, “students create a brief 1-minute presentation to highlight their resource’s physical properties that make it ideal for use in a smartphone, its specific use in a smartphone, and where it is mined in the world.” Students are identifying physical properties of minerals, building on 5th grade TEKS 5.6, where students learn that “matter has physical properties.”

Green Ninja Middle School Science Grade 6

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

- Materials are organized in chapters based on different topics. Each chapter introduces a specific concept/phenomenon and then proceeds to support that topic with lessons of increasing depth, eventually culminating in a chapter review.
- Materials include a progression of concrete and then representational (before abstract) reasoning when presenting topics. For example, in Lesson 2.2, A Way of Life, the unit challenge begins with the anchoring phenomenon of "A complex network of trade routes links the Caddo people to tribes hundreds of miles away."
- Materials sequence instruction in a way that activates or builds prior knowledge before explicit teaching occurs. Each unit includes a pre-assessment and time to discuss the topic, activating prior knowledge. For example, Unit 2, Ecosystems, begins with a pre-assessment in Lesson 2.1, Introduction to Ecosystems, and time to review and discuss content covered in the pre-assessment in Lesson 2.2, A Way of Life.

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

- The materials clearly present grade-specific core concepts, recurring themes and concepts, and science and engineering practices. Throughout the grade bands, there is a Unit Overview that clearly presents the Standards, Science and Engineering Practices, and Recurring Themes.
- Across lessons, units, and grade levels, materials are free from scientific inaccuracies and present scientific content that is current. For example, in grade 6, Unit 1, Minerals, the culminating experience is for students to create a smarter and more sustainable cell phone. Throughout the unit, they learn about Minerals, Periodic Table, Rock Cycle, and the Earth's interior before they complete the relevant culminating task. Throughout, the Core Concepts, RTCs, and SEPs are accurately taught in a relevant manner.

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

- Materials include specific learning targets for each grade level. Materials provide unit objectives for each unit and student learning objectives for each lesson. Throughout the grade bands in each unit, there is a Google Slide deck that is designed for the teacher to use as a teaching companion. Each lesson has an Agenda slide that contains the lesson activities, which are bullet points that serve as the learning targets for the lesson. For example, in grade 6, Unit 2, Ecosystems, the Agenda for Chapter 1, Protecting Ecosystems, Lesson 2.1, Lesson 1, Introduction to Ecosystems, states, "Lesson Activities. Students discover and make observations about life in the Big Thicket National Preserve ecosystem. Students take a pre-assessment to determine prior knowledge about ecosystems. Students discuss the unit challenge. Students prepare Ecosystem Notebook Covers with representations of their connection to the local natural world."
- Materials provide varied assessment opportunities that clearly define the boundaries of content that students must master for the grade level. For example, in grade 6, Unit 4, Earth from Space, Chapter 2, Forces and Energy, the Chapter Review lesson provides two assessment options with

well-defined criteria provided to ensure students are able to show mastery of the material. “Listed below are two assessment options that can be used to accommodate different learners:

- Option 1, One-Pager: Students create a one-page summary of everything they learned in the chapter using words and/or pictures. This is an excellent differentiated assessment—some students will be able to provide a wide range of detailed information, while others may be able to give basic words and drawings. See the “Content Knowledge” section for more guidance on using one-pagers.
- Option 2, Reading Questions: Students complete a series of multiple choice questions with one open-ended question from Forces and Energy reading questions C2-forces-and-energy-reading-questions.pdf. This option is good for students who need extra practice with literacy skills. Students can work in pairs or small groups to discuss the open-ended question."

- Materials provide a pre-assessment at the beginning of each unit. This allows the instructor to gauge the student's knowledge prior to starting the unit. As the unit progresses, there are multiple points (i.e., exit tickets, checkpoints, and performance assessments,) to gauge progress in the unit.
- Materials feature a Unit Assessment at the end of each unit. This task provides data on student progress and mastery of the key concepts. Additionally, it provides information that can be used for scaffolding, remediation, and/or reinforcement of certain topics during future lessons.

Green Ninja Middle School Science Grade 6

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.

- Materials display vertical and horizontal alignment of the grade-level content, recurring themes and concepts, and scientific and engineering practices. When teachers click on the Standards tab from the Grade Overview page, they will see how different concepts and skills recur within a grade and build across all of the grade bands (6,7,8).
- Materials provide a section for each Grade Overview page called "Curriculum Alignment" that describes the horizontal and vertical alignment.
- Materials provide a feature within the "Lessons" tab on each Unit Overview page. When the Lessons tab is opened, a list of all lessons within the unit is listed along with the TEKS addressed in each lesson. This feature allows teachers to see how one standard develops over multiple lessons within the unit (part of horizontal alignment).
- Materials provide a feature within the standards tab on each Grade and Unit Overview page that highlights the "Emphasizing" boxes that provide teachers guidance about the Science & Engineering Practices and Recurring Themes and Concepts. Teachers can swipe sequentially through the Emphasizing boxes for a specific Practice or Recurring Theme across all three middle school grades and see how they align and progress.

Green Ninja Middle School Science Grade 6

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 include a background information section for each lesson that includes explanations and examples of science concepts. For example, the content knowledge for teachers on Forces on Rockets Part II, includes free-body diagram examples and sample calculations of net forces in addition to explanations of Newton's laws.
- Materials also mention some opportunities for teachers to check for misconceptions. For example, the teacher is guided to use the Matter Concept Checkpoint to gauge student understanding and address misconceptions, but examples of possible misconceptions are not indicated for the teacher. For example, in Lesson 2.8, Ecosystems ABCs, the Teacher's Background Notes state, “Note: Although scientifically objects like rocks, water, and the air are not considered living, recognize that there are some cultures that believe that life exists within everything. As with any type of belief structure, encourage students who may have this viewpoint to also consider the understanding of science and how they might live with multiple views of the world.”
- Materials include teacher guidance within each lesson on how content and concepts increase in depth and complexity. For example, in Lesson 2.1, Introduction to Ecosystems, the Background for Teachers section states, “We will identify a wider range of interactions between organisms, see the connection between biotic and abiotic factors in the ecosystem, and emphasize how humans also depend on other parts of the ecosystem.” Lesson 2.2, A Way of Life, provides additional time and guidance for using the pre-assessment as an entry-level assessment tool, emphasizing how learning progresses within the Unit.
- Materials provide Background for Teachers sections within units. These areas provide content background knowledge to support teacher understanding. The section also includes information to support teacher facilitation for students with language, academic, or special needs.
- Materials provide a Tips for Teachers section that provides key information to assist teachers with content implementation. This information includes but is not limited to, lesson starters, analogies, and charts/diagrams.

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

- Materials provide a purpose or rationale for the instructional design of the program on the home page for each grade level course. For example, the grade 6 page introduces the Green Ninja framework by stating, “Our materials are designed around the updated TEKS and ELPS. We take to heart the notion that giving students opportunities to work on real-world problems can promote science learning and student engagement and a full description of the research behind the curriculum and the instruction design is provided at https://www.greenninja.org/texas/. The core of the curriculum is helping to make science fun and interesting for students. Student motivation is a critical component of learning, so our goal is to help teachers make their classes as engaging for students as possible.”
- Materials provide a storyline with a grade-level theme for the integrated curriculum. For example, the grade 6 storyline states, “The theme for Grade 6 is Earth Systems.” It is followed by an outline of the culminating challenges and concepts within each unit.
- Materials provide a YouTube video embedded on the Overview page that describes the structure and intent of the curriculum.

Green Ninja Middle School Science Grade 6

Indicator 4.1

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers.
    - For example, in Unit 2, Lesson 2.3, students trace the historic trade activity of the Caddo and indigenous groups across the country by reading trade cards that identify different resources. They then gather evidence to support or refute a claim that the Caddo did not rely as much on the environment because of their avid trading. Students improve on the claim in writing after a discussion with their group members.
    - In Unit 3, Lesson 3.9, students observe several mixtures in a quick lab before completing a written analysis of their observations while working with a partner. Students then use this understanding to design a water filter in the next lesson.
    - In Chapter 3, Become an Ecologist, students will investigate the question, "'What does an ecologist do?' Students will learn the answer throughout this unit as they follow the

practices of an ecologist through primary research by observing, collecting and analyzing data, asking scientific questions, and reflecting on what they have collected and observed..."
    - Each lesson contains a Reading Companion section that lists various reading files that the students will utilize. Throughout each lesson, students are required to think critically about the "why" and "how." These often include group discussions in addition to response writing tasks.
    - Each unit is broken into chapters where students use science and engineering practices to investigate a unique phenomenon. A culminating experience is featured at the end of each unit with the intention of giving students an opportunity to apply the knowledge gained.

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

- Materials provide opportunities for students to engage in purposeful and targeted activities with grade-level appropriate scientific texts.
    - For example, in each of the grade bands, there is a Literacy Tab at the top of each Unit. Within this tab, the teacher has access to the Reading Companions for each chapter, all other related reading files, reading comprehension question files, and additional reading files that are associated with the science concepts of the unit (offered through Newsela).
- Materials provide multiple opportunities for students to engage with scientific texts to gather evidence and develop an understanding of concepts.
    - For example, in grade 6, Unit 1, Minerals, Chapter 2, Periodic Table, there is a reading for students that can be used in a variety of ways to help students engage with and develop a deeper understanding of the concept of the periodic table.
    - Each chapter includes a Reading Companion that is highlighted on the Getting Started page of the chapter introduction. The companion includes a passage with illustrations, diagrams, charts, or graphs, as well as bolded unit vocabulary. Questions are included with both multiple-choice and open-ended responses.

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

- Materials consistently provide 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.
    - For example, each chapter includes two types of summative assessment. Chapter 1, Protecting Ecosystems, states, "Option 1, One-Pager: Students create a one-page summary of everything they learned in the chapter using words and/or pictures" and "Option 2, Reading Questions: Students complete a series of multiple choice questions with one open-ended question from Protecting Ecosystems reading questions."
    - Unit pre-assessments are structured as free-response questions to allow the teacher to gauge student understanding at the beginning of the unit.

    - In Unit 4, Chapter 3, Lesson 4.21, students are challenged to create a model that explains why there are seasons on Earth. Students determine the materials their group will use based on a set of criteria and are provided with some clues from a teacher demo before they begin their brainstorming. Tips for getting started include questions the students may consider in their groups as they work out the plan for the model.
- Materials provide multiple opportunities to communicate thinking on scientific concepts in written and graphic modes.
    - For example, in Chapter 5, Designing a Smarter Smartphone, students create pamphlets to communicate their evidence-based designs.
    - In grade 6, Unit 3, Chapter 4, students create a poster depicting action plans to reduce waste in the environment.
    - The teacher is provided additional tips in Unit 4, Chapter 2, Lesson 4.8, to include open-ended inquiry opportunities for students to utilize their understanding of Newton's Laws given a set of materials and without any other instructions. This provides students the opportunity to move through the steps of the engineering design process to create and refine their model rockets.

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.

- Material lesson instructions give students an opportunity to think critically about a subject that they may not have a high degree of familiarity with. This is intended to assess students' pre-knowledge but also to generate student interest and curiosity.
- Materials are structured to provide opportunities for students to engage in investigating specific phenomena.
    - The units are structured to provide many opportunities for productive struggle using science and engineering concepts. At the end of the unit, students are provided a culminating experience where they apply the knowledge gained to a real-world and often familiar situation.
    - For example, in Unit 4, Chapter 3, Lesson 4.21, students are challenged to create a model that explains why there are seasons on Earth. Students determine the materials their group will use based on a set of criteria and are provided with some clues from a teacher demo before they begin their brainstorming. Tips for getting started include questions the students may consider in their groups as they work out the plan for the model.

Green Ninja Middle School Science Grade 6

Indicator 5.1

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials provide opportunities for students to develop how to use evidence to support their hypotheses and claims. Throughout the 6-8 grade band, the materials offer many opportunities for students to participate in CER.
    - For example, in grade 6, Lesson 2.28, Scientific Town Hall Meeting, Part I, "The goal is for students to predict the impacts of their aspects of change on the forest ecosystem from the simulation. Students should keep the following factors in mind:
        - Their predictions must be based on evidence (simulation data); the impacts, or changes, should be deviations from this evidence."
    - In Lesson 3.33, students evaluate hurricane data to determine if there is evidence to support their friend's claim that in the future, cyclones will change. Students are asked to look at various graphs and figures to provide evidence, and the information provides students with sentence stems.
- Throughout the 6-8 grade band, in the Google Slide decks that accompany the lessons, there are prompts that remind students to use the evidence from their investigations when writing their CER. The slides and worksheets remind students that they need to "point out the parts of your

data that support your claim. Rather than just repeating the data, summarize it and compare it to help the reader see how it shows that your claim is reasonable."

- For example, in Lesson 2.28, students participate in a scientific town hall meeting. The callout prompts teachers to encourage students to use their CER skills in the discussion as follows: "Encourage students to develop arguments supported by empirical evidence and scientific reasoning. Your students will have performed other claim-evidence-reasoning (CER) analyses, so steer them through questioning to adopt a similar approach toward development of their predictions."

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

- Materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience to which they can contextualize new terms.
  - For example, the Google Slide decks that accompany each chapter include vocabulary development opportunities to provide students with a spiral review of new vocabulary after students have a concrete experience.
    - Lesson 4.28 states, "Define the three vocabulary terms (reflection, absorption, and transmission) in students' own words with everyday examples. Encourage students to add to and/or revise answers on their worksheets."
- Materials include embedded opportunities to develop and utilize scientific vocabulary in context.
  - For example, in Lesson 2.8, students use the vocabulary they have learned to classify organisms they have listed on sticky notes as biotic, abiotic, or cultural on a triple venn diagram.

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 develop how to engage in the practice of argumentation and discourse.
  - For example, Lesson 2.3 includes a blue call-out box emphasizing engaging in arguments from the evidence that states, "Like many claims, the one in this discussion has some elements of truth to it. Even if students completely disagree with the statement, have them find the evidence that does support the claim. Then, have them use reasoning to justify why that evidence is not sufficient or if there is a better answer that also explains all the available evidence. In everyday life, it's very common for advertisements to make claims that are partly supported by evidence but probably untrue when you look at the whole picture. We want students to notice these misleading claims and be able to construct the appropriate counter-argument based on the full body of evidence."
  - Lesson 2.32 states, "To address the unit challenge and establish arguments for protecting healthy ecosystems, students write letters of thanks and support, with related documentation to the owners/managers of their ecosystems study location areas."
  - In Lesson 2.11, students work in small groups to become experts on a topic and then disseminate that information to the rest of the class.

Green Ninja Middle School Science Grade 6

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

- Materials provide opportunities for students to justify explanations of phenomena and solutions to problems using written and verbal arguments to problems using evidence acquired from learning experiences.
    - For example, in grade 6, Lesson 4.24, Modeling Earth's Seasons, Part IV, “Formative Assessment: Have students explain the Earth-Sun-moon relationship. Give students the Earth-Sun-Moon exit ticket. This is to be used as a formative assessment of students' progress through the unit. Instruct students to draw diagrams, write sentences or paragraphs, or use any other way they can think of to explain the Earth-Sun-moon relationship.”
    - There are two thought-starter questions for students: “What is the Earth’s relationship with the Sun, based on this group of lessons?” and “What is the Earth’s relationship with the moon, based on this group of lessons?"
- Throughout the grade bands in every lesson that requires students to use the CER process to create an argument rooted in evidence from their investigations, there is a rubric that helps guide students to ensure that they are including appropriate evidence that justifies their explanations of the phenomena/content based on their learning throughout the lesson.
    - Each unit has a culminating project that uses various learning formats for students to present their learning. For example, in Unit 1, Food, the Culminating Project is designing a better smartphone, creating a pamphlet to showcase their design, and a gallery walk to analyze each design.

Green Ninja Middle School Science Grade 6

Indicator 5.2

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

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

Meets | Score 4/4

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

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

Evidence includes but is not limited to:

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

- Materials provide guidance on how to build on students' thinking. Throughout the grade bands (6,7,8), the Google Slide decks provide guidance for teachers in the slides and the notes portion on many ways to deepen student understanding, including, but not limited to, sentence stems, tie back to prior knowledge/lessons, common student responses, common student misconceptions, and using vocabulary in context emphasis.
- Materials provide support for teachers to deepen student thinking through questioning.
    - For example, in grade 6, Lesson 4.2, Earth From Space, the materials state, "Give students the remainder of the period to explore the images of Earth from space. Keep slide four displayed, or write the following questions on the board for students to consider as they examine the images: What technologies are used to capture images of Earth from above? What do these images depict? How can images like this be used? Who might use them? What do these images tell you about human activity?
        - Students should write answers to these questions on the dry-erase boards, chart paper, or in their science notebooks, depending on which option they chose for viewing the images. Your decision should align with any needed student accommodations."

- Materials provide guidance on anticipating student responses and the use of questioning.
    - For example, in the Google slide deck in grade 6, Lesson 1.1, slide 28 contains discussion questions related to the topic at hand. The speaker notes in the slide provide some suggestions on anticipated student responses to those questions.

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

- Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary.
    - For example, in the slide decks for each unit, vocabulary words are often introduced after students have experienced core concepts. In the Unit 2 slide deck, the term *behavioral adaptation* is introduced after students study migration maps of Monarch butterflies.
    - In Unit 1, Chapter 2, students are provided with definitions, images, examples, and descriptions of vocabulary terms, including *metals*, *nonmetals*, and *metalloids*. At the End of Chapter Concept Check, the teacher guides students to apply their understanding of the vocabulary terms in a chart with physical property descriptions.
    - Slide 17 of the Unit 2, Ecosystems, Google Slide Deck helps define an ecosystem by comparing it to the area near the school and asking the following questions: "Does the area near our school have living organisms? Do the living organisms interact? Is there a physical environment? So, is the area near our school an ecosystem? Then summarize that if these three things exist, then it is an ecosystem."
    - Materials provide designated vocabulary in a designated section in each lesson. For example, the Lesson 1.1, Introduction to Minerals vocabulary section provides two vocabulary words specific to the lesson (*Mineral* and *Mining*). It also includes a specific symbol to identify vocabulary throughout the course.

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

- Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims.
    - For example, slide 3 of the Google slide deck in grade 6, Lesson 2.24, details the revisiting of the lesson roadmap and then asks teachers to prompt students to consider two questions and share their responses.
    - Throughout each grade band (6,7,8), teachers are provided supporting questions throughout lessons as students are able to complete a CER (Claim, Evidence, Reasoning Method) to use evidence in their claim, such as during Lesson 4.6, Human Consumption and Earth in Space.

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

- Materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year.

- For example, each unit ends with an assessment; however, the materials provide multiple options covering different learning modalities and give teacher guidance on executing each.
    - Lesson 3.25 Chapter Review Lesson states, “Listed below are two assessment options that can be used to accommodate different learners. Option 1, One-Pager: Students create a one-page summary of everything they learned in the chapter using words and/or pictures. This is an excellent differentiated assessment—some students will be able to provide a wide range of detailed information, while others may be able to give basic words and drawings. See the ‘Content Knowledge’ section for more guidance on using one-pagers. Option 2, Reading Questions: Students complete a series of multiple choice questions with one open-ended question from Cell Theory reading questions C3-cell-theory-reading-questions.pdf. This option is good for students who need extra practice with literacy skills. Students can work in pairs or small groups to discuss the open-ended question.”
- Norms for discourse are reinforced during whole class and group activities. In Unit 1, Chapter 5 Slides, before the students participate in a peer review process, the Norms for Classroom Discourse are reiterated, and teachers are guided to review what that looks like.
- Students debrief the culminating project in Unit 1 by reflecting on questions and sharing with a partner a specific protocol. Teacher guidance on supporting students in this discourse protocol is provided in the notes of the slide deck, stating, “Time spent reflecting on learning is a valuable skill for students; it helps them link and construct meaning from their experiences. Use a processing activity such as Back-to-Back, Front-to-Front to help students reflect on and debrief about creating their smartphone pamphlets.”

Green Ninja Middle School Science Grade 6

Indicator 6.1

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials consistently include a range of diagnostic, formative, and summative assessments that include formal and informal opportunities to assess student learning in a variety of formats.
    - For example, the 6th Grade Course Overview highlights various assessment strategies embedded throughout the curriculum. It states, "The Green Ninja curriculum provides a diverse range of assessment types to ensure comprehensive monitoring of student progress. Each assessment type is designed to serve a specific purpose and offers unique insights into student understanding and performance. Here's more information about each assessment type:
        - Pre-assessments: These assessments help gauge students' prior knowledge and understanding of a topic before starting a unit. By identifying existing preconceptions and levels of content knowledge, teachers can tailor their instruction to address misconceptions and meet individual student needs.
        - Exit Tickets: Short, open-ended questions that serve as checkpoints to inform teachers of students' understanding during a lesson or unit. Exit tickets allow for quick feedback and help educators adjust their instruction accordingly to address gaps in knowledge or comprehension.

  - Worksheets/Handouts: These resources often include questions or activities that require students to apply their learning to various tasks. A teacher key is typically provided to offer guidance on evaluating student responses, ensuring consistent and accurate assessment of student work.
  - Concept Checkpoints: These thought-provoking, multiple-choice questions are specifically designed to assess students' understanding of particular science concepts. Many items are crafted to prepare students for state or national assessments, reinforcing essential knowledge and skills.
  - Rubrics: As most summative assessments are performance-based, rubrics are used to evaluate student work in terms of science core ideas, practices, and cross-cutting concepts. Rubrics provide clear criteria for assessment, ensuring consistency and fairness in the evaluation process.
  - Performance Assessments: Culminating projects serve as performance assessments, requiring students to extend their science learning and apply their understanding to real-world scenarios. These assessments demonstrate students' ability to synthesize information, solve problems, and effectively communicate their ideas.
  - Unit Assessments: At the end of each unit, students complete assessments designed to evaluate their understanding of the primary science content. These assessments provide valuable data on student progress and mastery of key concepts, informing future instruction and identifying areas for improvement or reinforcement.

    By incorporating these diverse assessment types into the Green Ninja curriculum, educators can effectively monitor student progress and adapt their teaching strategies to better meet the needs of their students."
- Materials include formative assessments in a variety of formats to measure student learning and determine next steps for instruction.
  - For example, the Google Slide Presentations include checkpoint slides (color-coded teal) to provide formative assessments.
  - In the Unit 2, Chapter 2 Google Slide Deck, slides include the Element Concept Checkpoint Activities using the Concept Test Method.
- Materials consistently utilize a combination of formative and summative assessments.
  - Each chapter culminates with a summative assessment. Teachers are provided with multiple options, including student-created summaries of the material or multiple-choice questions. Additionally, throughout the chapters, the materials provide a multitude of opportunities for the instructor to assess ongoing student learning and provide intervention/facilitation when needed.

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

- Materials provide TEKS based lesson plans that provide student expectations and guidance on how to assess student learning. Each unit consists of chapter assessments and a single unit assessment. The assessments directly address the materials covered within each chapter/unit. Chapter assessments are provided in multiple options, either short answer-based or multiple choice.
  - For example, the TEKS are assessed through a variety of assessments, including pre-assessments, checkpoints, activities, discussions, culminating projects, and unit tests.

The TEKS are not identified for each assessment item or as a whole though they do appear to align well with the instruction in the lessons.

- Materials provide a general overview that lists all the assessments provided in conjunction with the student expectations. Materials provide answer keys for assessments offered in the lesson in which it is presented. In that answer key, a box below each item shows the correlation to the TEKS core science content standard being assessed and the scientific practice and recurring theme/concept that the student draws most heavily upon to answer the question. This table specifies all three dimensions of the TEKS (i.e., core science content, scientific & engineering practices, and/or recurring themes & concepts). Each assessment item can assess a single dimension or can require the integrated application of two or all three of the dimensions.

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

- Materials include assessments that require students to integrate scientific knowledge and science and engineering practices appropriate to the student expectation being assessed.
    - For example, in Grade 6, Lesson 1.25, Minerals, Unit Assessment and Reflection, in the Minerals Unit Post-Assessment, question one states, "Analyze this chart. Explain why some minerals might cost more than others. Analyze data and Argue from evidence."
- Materials include assessments that require students to integrate recurrent themes appropriate to the student expectation being assessed.
    - For example, in grade 6, Lesson 1.25, Minerals, Unit Assessment and Reflection, the progression of questions 2-5 requires the students to be able to identify the pattern within the density column in order to be able to place the bead in the correct location.
    - In Lesson 1.14, Investigating the Rock Cycle Part VI, students look at each other's flowcharts and share their Rock Cycle Stories, emphasizing developing and using models. After a gallery walk and analyzing various flowcharts, students then complete an exit ticket.
    - Each unit includes a culminating project. The Green Ninja Website states that this "Performance Based Assessment occurs once per unit, using a rubric. Green Ninja's specially designed assessment to assess students' culminating projects," where they merge science concepts and science and engineering practices with recurring themes.

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

- Materials consistently include assessments that require students to apply knowledge and skills to novel contexts. The culminating experience for each unit is a real-world, scenario-based assessment where students apply their learning from the unit to propose a solution.
    - For example, in the Unit Assessment for Unit 2, students are asked questions about the Big Thicket ecosystem, and although Unit 2 addressed Big Thicket, the questions focus on the impact of a tornado in the area and its effects on the organisms in the ecosystem.
    - The Unit 1 Assessment in grade 6 incorporates chart analysis and labeling/describing the Earth's layers.
    - The Unit 2 Assessment in grade 6 requires students to make conclusions based on a data table in addition to providing short answer responses based on evidence to various prompts regarding the content.

Green Ninja Middle School Science Grade 6

- Materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem.
    - For example, in Unit 4, Earth From Space, the Chapter 2 Google Slide Deck includes a checkpoint where students are asked to "label these situations by the proper type of force (there may be more than one type of force in each situation)" and "Which type of force makes the rocket fly upwards when you blow into the straw?" referring back to their model of a (paper) rocket.
    - The Unit 2 Ecosystems Culminating Project states, "Based on data collected in the simulation, students predict changes that may occur due to potential climate change disturbances. To develop science communication skills, students will prepare for interviews. By combining scientific knowledge with introspection, communication is enhanced. Students evaluate their Ecosystem Notebook content in preparation for the culminating activity of writing a formal letter in support of ecosystem protection. Students draft their letters, receive peer feedback, and then complete the final copy of their letters. A post-assessment and reflection complete the unit."

Green Ninja Middle School Science Grade 6

Indicator 6.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials consistently include information and/or resources that provide guidance for evaluating student responses.
    - For example, in the unit pre-assessments, teachers are provided with guidance in the form of an answer key and additional information in the "Background for Teachers" section. In Unit 2, Lesson 2.1, the Content Knowledge notes for teachers indicate, "Collect the pre-assessments and skim through them to get an idea of student progress, understanding the core ideas, as well as any preconceptions. Tally up the number of students that: Show non-living parts of an ecosystem, Show 3 or more types of interactions between organisms (eat, provide shelter, decompose, etc...), and include humans in the ecosystem model.
      These are useful for you because we will identify a wider range of interactions between organisms, see the connection between biotic and abiotic factors in the ecosystem, and emphasize how humans also depend on other parts of the ecosystem. Lesson 2.2 A Way of Life provides additional time and guidance for using the pre-assessment as an entry-level assessment tool."
    - In the Unit 2, Chapter 2 slide deck, the exit ticket brings students back to the initial concept addressed in the phenomenon. The teacher is guided to consider the following

when evaluating student responses: “Student responses should include a story that the biotic components of the ecosystem like plants depend on the abiotic conditions. In winter, the abiotic conditions change and the plants can’t grow. Animals, another biotic part of the ecosystem, depend on the plants. Without enough resources, they move to somewhere else that does have enough resources. Animals also depend on the abiotic conditions — when it’s too cold or snowy, it makes it hard for them, too.”

- The pre-assessment for each unit is given to students with teacher guidance on how to use the results. In Lesson 4.2, Earth from Space, the Tying It All Together Section states, “Students review the pre-assessment taken in the previous class and continue their exploration of satellite images of Earth. The images guide a class discussion preparing students for upcoming lessons on satellite technology and give students an awareness of how human impacts on Earth are visible, as well as time to reflect on ways to mitigate negative human impacts.”
- In the Unit 4, Earth From Space, Chapter 1 Google Slide Deck, slide 40 states, “Show students the Earth from Space Unit Roadmap image (Lesson 4.3). Explain that the image is the Unit Roadmap and gives them an overview of the storyline: Earth is a big place and one of the best ways to monitor the state of our planet is by using satellites. Our goal for this unit is to describe the various conditions of Earth using satellite technology and then offer possible solutions to particular problems.”

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.

- Throughout each of the grade levels (6,7,8), materials provide guidance resources to support teachers' analysis of assessment data.
    - In each grade level, under the tab titled “GN Classroom,” there is a subsection of information called “Responding to Assessment Results.” There is a table provided that explains the following: “When a student or many students fall below our goals, we must first diagnose the problem and figure out where things went wrong. A student's performance depends on three crucial interactions: the student and the assessment itself, the student and the learning activities that went before the assessment, and the alignment between the assessment and those learning activities. If a student does poorly, it is because of a failure in one of those connections.”
- Materials provide guidance or tools to support teachers in responding to data to inform instruction.
    - Each unit contains two or more concept checkpoints designed to be formative assessments of student understanding of particular core concepts. A small box in the lesson where the checkpoint occurs shows the correlation to the content TEKS being assessed, along with guidance for teachers to support students who do not meet expectations.
- For example, when a teacher clicks the Lessons tab on each Unit Overview page, they will see a list of all lessons within the unit along with the TEKS addressed in each lesson. TEKS in bold indicate formative or summative assessments. This feature allows teachers to see how a lesson and its associated assessments are aligned to the standards.

Green Ninja Middle School Science Grade 6

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

- Materials provide guidance to support teachers' analysis of assessment data. Each unit begins with a pre-assessment, a pre-assessment answer key, and discussion questions to guide teachers on how to interpret the data and engage students in understanding the initial concepts needed.
    - For example, Lesson 3.2, The Story of Trash, states, “Begin by having students choose partners. Instruct pairs to discuss their pre-assessment answers. Give partners ten minutes to discuss their answers with each other, make revisions, and/or compile questions to ask.
      After students have had time to discuss, go over each question and call on different pairs to share their answers. Be sure to give all students time to share.
      After each question is discussed, you may choose to summarize the correct answer, especially if student preconceptions are evident. Use the Reducing Pollution and Waste Unit pre-assessment key Lesson 3.1 as a guide. Do not simply read the answers and expect students to write them down. The pre-assessment is not intended to be used for instruction; it is to get a feel for student progress in the disciplinary core ideas of the unit. Be sure to give students time to ask any questions they wrote down.”
- Materials include assessment tools that yield data teachers can easily analyze and interpret. Throughout the 6th grade course, there are a variety of assessment types, including open-ended opportunities and creative ways for students to showcase learning and for teachers to evaluate their learning.
    - For example, the unit slide decks include concept checks and exit tickets that teachers can use to further plan core instruction and differentiate based on student responses.
    - The Unit 3, Reducing Pollution and Waste, Chapter 3 Google Slide Deck contains a checkpoint on slide 24 where students take a quiz. An answer key is provided, as well as teacher guidance in the notes section.
- Materials provide checkpoints throughout the lessons and culminate with a unit assessment. These tools provide useful data to reference back to the pre-assessment to determine student growth and/or identify areas of concern for re-teaching/scaffolding of instruction.

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

- Throughout each of the grade levels (6,7,8), materials provide a student resource for teachers to use in responding to performance data. There is a chart called “Responding to Assessment Results" found in the GN Classroom Tab. It states, "Once you successfully diagnose the problem, then you can chart a plan for solving it.”
    - For example, “maybe the problem is as simple as the fact that the student misunderstood the intent of a question (student/assessment). If the problem lies in the alignment between the learning activity and assessment, it may require teaching skipped material or rewriting the assessment question.”
    - The unit slide decks contain concept checks that include misconceptions as distractors. Teachers are guided to use student responses to misconceptions to guide the discussion.

Green Ninja Middle School Science Grade 6

- Throughout each of the grade levels, materials include intervention activities teachers can use for reteaching concepts. This is intentionally driven by response to student assessment data. These intervention activities are provided for use at any time.
- For example, materials provide resources that teachers could use to respond to student data, including reading passages, reading companions, sentence stems, graphic organizers, and extensions. Materials provide teacher guidance in the Teacher Tips section for every Chapter Review Lesson on how to respond to student data from the end of chapter assessment. The sections are titled “How to Support Students with Reading” and “How to Support Students with One-Pagers.”

Green Ninja Middle School Science Grade 6

Indicator 6.3

Assessments are clear and easy to understand.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials contain assessment items for the grade level that are scientifically accurate. Formative and summative assessments include assessment items that align with taught objectives and present grade-level content and concepts, science and engineering practices, and recurring themes and concepts in a scientifically accurate way.
    - In Unit 2, Ecosystems, students investigate different types of ecosystems both locally and globally. Materials state, "Students will have the opportunity to develop a scientific and personal connection to natural areas called "Ecosystem Study Locations" near their homes and/or school. Students will also observe Earth processes at various temporal and spatial scales around the world and will see how a change in one part of the system can affect other parts of the system."
    - The grade 6 Unit 2 Assessment contains items that accurately refer to a tornado event that occurred in the Big Thicket ecosystem in 1983.
- Materials contain assessment items that avoid bias and are free from errors.
    - For example, in Unit 2, students explore diverse cultures, ecosystems, and natural resources as they trace historic trade routes of indigenous groups in the southeast US.
    - The example calculations for net force are free from errors in Unit 4, Lesson 4.10.
    - The grade 6 Unit 1 Assessment does not contain any errors related to grammar, spelling, and formatting.

Green Ninja Middle School Science Grade 6

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

- Assessment tools use clear pictures and graphics. Throughout the grade bands (6,7,8), the images that are used help to provide a visual understanding of the content being taught.
    - For example, in Grade 6, Lesson 1.9, Investigate the Rock Cycle Part I, the Floating Rock activity provides a visual of a rock floating in a beaker of water with the prompts of notice and wonder for students to write their understanding for use as a formative assessment.
    - The pre-assessment for Lesson 3.1, Reducing Pollution and Waste, contains images of various liquids in beakers for the students to visualize the question, which is a developmentally appropriate strategy to utilize images in assessments.
    - The Reading Questions Passage Assessment in Lesson 3.25, Chapter Review Lesson, provides images of each state of matter for students to identify and compare.
- Assessments contain pictures and graphics that are developmentally appropriate. Throughout the grade bands (6,7,8), the graphics and images used are appropriate for the grade level without excessive detail that would alarm or overwhelm middle school students.
    - For example, in the Unit 1 Assessment, images of a data table, density column, and earth layer model are simple, colorful, and developmentally appropriate.
    - In the Unit 2 pre-assessment, images of an example "school system" are clear and provide students with developmentally appropriate guidance on how the response could appear.
    - The images in the grade 6 Unit 2 Assessment depict clear images from the tornado event discussed in the items.

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

- Materials provide clear guidance for teachers to consistently and accurately administer assessment tools. Materials offer alternate-form reliability to maintain consistency of test results between two different but equivalent forms of tests.
    - For example, the Culminating Experience Teacher Guide provides detailed information for teachers to administer the performance-based assessment, including guiding questions, student exemplars, and a rubric.
    - The pre-assessments provide guidance for the teachers on when to give pre-assessments and provide options for administration, including digital access through google classroom.
- In each of the grade bands (6,7,8), there is an opportunity for a formative/summative review at the end of each chapter that allows the students choice in assignment to show what they know. There is guidance for the teacher to explain the difference between a one-pager assignment and a reading comprehension assignment.
    - For example, Lesson 1.31, Chapter Review Lesson, includes a Teacher Background Section providing guidance on how to administer the one-pager with examples of completed ones and details about what should be included in the overall assessment.
    - Lesson 3.25, Chapter Review Lesson, provides an answer key for the Reading Questions Assessment with explanations for questions where students' answers may vary.
- Materials include detailed information that supports the teacher's understanding of assessment tools and their scoring procedures. An assessment guide or a distinct section in the Teacher's Guide on assessment includes an overview of the assessment, scoring procedures, and an answer key.

Green Ninja Middle School Science Grade 6

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

- Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery aligned to learning goals. The Unit Overview provides teachers with a list of assessments within the unit and their purpose, and the teacher may determine if and how those assessments are given to students and accommodate particular needs based on the format of the assessment.
    - For example, the Culminating Experience for Unit 1 includes notes for the teacher in the Access and Equity section that indicates accommodations that can be provided for students that are non-dominant science learners or have special needs. The Background for Teachers states, "There are thought-starters for each stage of a phone's life cycle, but students below grade level, with learning disabilities, or with special needs may need additional help. You can model thinking out loud around a couple stages of the life cycle as well as having advanced, gifted, and other students share their ideas with the class. Showing examples of other sustainable products may help too. All students should be able to create a pamphlet highlighting a sustainable phone design, but to better help EL learners and students with disabilities, special needs, and general difficulty understanding academic content, you might consider letting them work in larger groups, perhaps assigning each student (or even pairs of students) one page of the pamphlet."
- Materials offer accommodations for assessment tools so that students of all abilities can demonstrate mastery of learning goals.
    - For example, Lesson 4.45, Chapter Review Lesson, states, "You can allow students to choose their own assessment style so that 'lower' students can challenge themselves with the 'high-level' assessment, and 'higher' students can do the one-pager showing their depth of knowledge. Sometimes, 'higher' students need a break from ALL high-level assessments, and sometimes, 'lower' students need the challenge of completing a higher-level task. You can have students complete the chapter assessment by working in small groups (2-3 students). Using small groups for assessments can improve student learning."
    - All video clips (such as the Green Ninja Show Episodes) have closed caption capabilities to help all students see and hear scientific vocabulary in context.

Green Ninja Middle School Science Grade 6

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 mastery. Materials provide enrichment activities for all levels of learners. Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.

Evidence includes but is not limited to:

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

- Materials consistently provide teacher guidance for scaffolding instruction for students who have not yet achieved mastery. Throughout the grade bands, there are multiple guidance points for the teacher to scaffold learning to a variety of student learning levels. These opportunities can be found incorporated within the lesson plans in the sections labeled “Teacher Background” under the headings Access and Equity and Student Prior Learning.
- Materials include teacher guidance for differentiating activities for students who have not yet achieved mastery as well as advanced learners.
    - For example, in Grade 6, Unit 2, Ecosystems, Chapter 1, Protecting Ecosystems, Lesson 2.3, Tribes and Trade Routes, the following differentiation guidance is offered: “Standard EL and EL Learners: These lessons, which look at indigenous peoples of the southeast US, introduce students to the value of natural resources in the past, and have them reflect on the status of that resource now. For students that may struggle with reading, assign them only a small subset of the Resource Cards.”
    - In Unit 3, Lesson 3.12, the Non-Dominant Science Learner section of the Teacher Background suggests strategic grouping for the lab activity, stating, “group EL learners, students with special needs or disabilities, and learners below grade level with patient and compassionate advanced and gifted learners or other students who can help read and demonstrate instructions.”
    - Guidance is given for “Advanced and Gifted Learners: Offer advanced students the opportunity to research other resources besides those on the Resource Cards. You might also invite them to trace the path of corn from its origin in Mexico up to the

Caddo people and beyond. From the Thanksgiving story, they might recognize that corn made it all the way up to the northeast US. When and how did that happen?"
    - Guidance is given for "Students With Special Needs or Disabilities: A teacher can easily convert the Tribes and Trade Routes map into a tactile map for visually impaired students. Simply print the map out and then trace the trade routes with a big "river" of white glue. Allow it to dry overnight. Trace the outline of the USA as well."
- Materials provide an Access and Equity section at the beginning of each unit.
    - For example, this section details information in Lesson 2.9 that suggests teachers follow the guidelines listed in part 2 to help students with graphing. In addition, it also recommends the use of highlighting key sentences and requesting students explain those in their own words.
    - The Access and Equity section details particular struggles that students could endure and provides suggested solutions to serve as intervention methods to facilitate learning.

Materials provide enrichment activities for all levels of learners.

- Materials provide enrichment activities that account for learner variability.
    - For example, materials suggest small group or partner discussions, and include guidance to regularly engage in tasks, such as writing prompts for responding to lessons so students can apply their science knowledge in writing. Each unit includes a list of suggested readings to encourage all students to make connections, learn about the unit concept and standards, and integrate mathematical practice where applicable.
    - In Grade 6, Unit 4, Earth from Space, Chapter 2, Forces and Energy, Lesson 4.7, Rocket to Space, there is an extension activity that is accessible for all level learners: "Reading Comprehension and Science."
    - In Unit 3, Lesson 3.25, an enrichment activity on Researching Careers is included with a link to a STEM careers website and questions for students to answer.
    - In Unit 1, Lesson 1.3, a math connection activity challenges students to determine the storage capacity of cell phones.

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

- Materials include a variety of means to provide just-in-time learning opportunities for students.
    - These include but are not limited to, group discussions, teacher tips, and background for teacher sections embedded into the lessons. Throughout each of the grade bands in the Google Slides that accompany each of the lessons, there is guidance for the teachers in the "Notes" sections of the slide deck that help to provide scaffolds for "just-in-time" learning acceleration.
        - Some "just-in-time" suggestions that are provided include, but are not limited to, sentence stems, tie backs to previous lessons, lesson/concept analogies, reminders of key concepts to emphasize, possible student misconceptions, and additional resources to investigate.
    - Lesson 2.2, A Way of Life, states, "Project the Trail Map phenomenon -Before any related direct instruction, allow students to make some guesses about what they observe on the map. Encourage them to ask questions and point out the data on the map that they find curious or interesting. Assure them that at this point they do not need to understand the map completely. It will be revisited in the next few lessons. After accepting responses, orient the class to the map. It is a record of which indigenous

tribes traded throughout the US in the time before Europeans came to America. Introduce the phenomenon statement: A complex network of trade routes links the Caddo people to tribes hundreds of miles away, and ask the students to reflect on their initial wonderings and questions, and see if they have new questions or revised things they notice."

- Materials often include questions for teachers embedded in lessons to stimulate student engagement and thinking about the upcoming topic.
    - For example, each unit includes a Google Slides Presentation. Slide 1 of the Slide Deck states, "Lesson Content, including teacher tips and teaching resources, is provided in the notes section of each slide."
    - Throughout the grade bands, the materials include a Culminating Experience at the end of each unit of learning that contains challenging activities that extend beyond the regular curriculum and stimulate critical thinking, problem-solving, and creativity.

Green Ninja Middle School Science Grade 6

Indicator 7.2

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials engage students in mastery of the content through a variety of developmentally appropriate instructional approaches. Each unit is designed to address multiple learning modalities.
    - For example, the 6th-grade coursework includes multiple reading activities (Reading Companion used frequently), visual activities (Green Ninja Show/Google Slides), and kinesthetic activities (field investigations).
    - In Unit 2, students conduct a study of a local ecosystem, play an interactive Carbon Command game to visualize the movement of energy and matter in Earth's systems, and collect and represent data on their classmate's features to understand variation within a population.
- Materials provide many opportunities for students to learn from various means.
    - For example, in Grade 6, Unit 3, Chapter 1, students utilize pre-assessments, model creation, small group discussion, peer-share, and hands-on demonstrations.

Green Ninja Middle School Science Grade 6

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

- Materials consistently provide guidance to teachers on when to use specific grouping structures based on the needs of students.
    - For example, in Lesson 3.14, Introduction to the Reducing Waste Unit Challenge Project, the teacher notes state, "Give students time to make individual tables to record their discarded items using broad categories that were decided upon by the class. Assign or let students choose teams, and instruct teams to work on the data tables. Have different teams meet and compare their 'top five' items when addressing the Analyzing Data and Action Plan activity."
    - In Unit 2, Chapter 1, students work in pairs to respond to questions related to their pre-assessment, then work in small groups of 3 or 4 on a trade activity. Finally, students work independently to identify an ecosystem they will study outside of class.
- In each unit, students are given multiple opportunities to utilize flexible grouping, including whole group, small group, and one-on-one.
    - For example, Lesson 2.3, Tribes and Trade Routes, first "pairs students up and instructs them to describe the natural objects on their completed Notebook Cover template," and move on to the next activity where the teacher "divides students into small groups (three to four) for this activity."
    - In Unit 2, Chapter 5, students revisit their previous jigsaw groups to conduct a Scientific Town Hall where their group's conclusions are peer-reviewed in the next lesson during a gallery walk.

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

- Materials allow for the implementation of multiple forms of practices. Students often engage in teacher-guided instruction combined with group collaborative work.
    - For example, in Grade 6, Unit 1, Lessons 1.9 - 1.11, students work collaboratively, then proceed to work independently to construct a flow chart. Teacher instruction is used when necessary to clarify and further student understanding.
    - Each unit provides opportunities for group and independent lab investigations, demonstrations, and scientific discussions.
    - The course overview for 6th grade on the GN Classroom tab provides teacher guidance on facilitating instructional strategies, including science notebooks, charts and posters of science concepts, discussion protocols, and collaborative group work used throughout the course.
- Materials provide a useful tool for teachers to facilitate various modes of instruction. The slide deck incorporated into each unit is constructed so that green backgrounds typically provide instruction activities and grouping sizes. Orange backgrounds are for class discussions, and blue backgrounds are for assessment activities.
    - Lesson 2.11, Earth Systems Deep Dive Part II, states, "The lesson plans describe dividing students into small groups. Depending on the availability of instructional aides in your classroom, you may choose to mix EL learners with stronger readers or group the EL learners together and work more intensely with this group."

Green Ninja Middle School Science Grade 6

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

- Materials represent a diversity of communities in the images and information about people and places.
    - For example, the images in the roadmaps, phenomena, and slide deck represent diverse communities in real-world rural, urban, and suburban settings.
    - Materials are aware of the diversity of Texas and incorporate many examples of native Texas within the curriculum. For example, in Grade 6, Unit 3, Reducing Pollution and Waste, “Students review how pollution gets into waterways and look at a case study of the Buffalo Bayou in Houston as an example of how pollution and waste can negatively impact the environment and how people work to find solutions to environmental problems.”
    - Characteristics vary in images to include race and ethnicity, skin tone, gender identity and expression, age, disability status, body size and shape, and hair texture. For example, in grade 6, the Unit Roadmap is shown with a variety of abilities and ethnicities.
- Materials represent diversity in the places of focus, including both Texas-specific locations and also those around the world.
    - For example, Unit 2 guides students to conduct a local ecosystem study, while Unit 4 focuses on satellites that orbit the Earth.
    - Additionally, a video is used to bring focus to a Taiwanese-American ecologist by the name of Tony Chang. Another example brings focus to a visually impaired Hispanic-American astronomer by the name of Dr. Wanda Diaz-Merced.

Green Ninja Middle School Science Grade 6

Indicator 7.3

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. Throughout the grade bands, there are multiple links to ELPS supports to guide teachers with modifications and accommodations needed for all levels of ELLs. These materials can be found embedded within the lessons and chapter reviews in all grade bands.
- Throughout the 6-8 grade band on the unit landing page, there is an Access and Equity section that states the following:

  For English Learners, Guidance for strategic learning techniques and vocabulary acquisition to be used throughout. Vocabulary: Repeat basic and grade-level vocabulary words throughout lessons. Have students provide a definition, use the word in a sentence, and draw the sentence using basic and grade-level vocabulary. Give students time to practice sounding out and spelling the vocabulary words independently, and using the vocabulary in a sentence with a partner. Use a word wall in the classroom for each unit where you highlight basic and grade-level vocabulary words. Encourage students to use vocabulary when asking for and when giving information as applicable. Challenge students to use the words correctly in conversations throughout that unit. Learning Techniques: During discussions, have students repeat the last sentence they heard before contributing to the conversation (i.e., "I heard…say…, I think…."). When using reading handouts, have students circle all unfamiliar words. Then, give students time to create definitions, sentences, and illustrations of each word. Use concept maps,

Encourage elaboration during discussion, Recalling information during the Unit Roadmap discussions, Partner/Group Work, One-pagers as an assessment. More ways to support English Learner students can be found on each chapter review lesson.

- For example, the Chapter Review Lesson 1.31 provides an ELPS Modification and Integrations to Support Literacy Document that includes guidance on Learning Strategies, Vocabulary, Discussion (listening and speaking), Writing, Reading, and Sentence Stems.
- The ELPS Modification and Integrations to Support Literacy Document for Lesson 4.45 includes sentence stems as well as suggestions for organizing information into graphic organizers.

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

- Materials encourage strategic use of students' first language as a means to linguistic, affective, cognitive, and academic development in English.
    - For example, in the chapter review section of each unit, the Access and Equity area indicates supports for English language learners, including having teachers "provide students with a bilingual dictionary to use as needed," and indicating that "translating the handout into the student's native language may also be helpful."
    - In Grade 6, Lesson 1.4, the access and equity statement suggests having students explain interesting facts in their native language or dialect.
    - The ELPS Modifications & Integrations to Support Literacy section of the chapter reviews suggests the use of Google Translate to create a document in students' native language.

Green Ninja Middle School Science Grade 6

Indicator 7.4

Materials provide guidance on fostering connections between home and school.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- Materials provide information to share with students and caregivers about the design of the program. For example, at the beginning of each grade level overview, there is a section titled “Family and Caregivers.” The following information is provided:

  Dear Family Members and Caregivers,

  We are excited to introduce the Green Ninja curriculum to our Texas middle school students! This innovative program is based on the latest research and focuses on engaging students in authentic science experiences that enhance engagement and drive academic performance. The Green Ninja curriculum is unique in several ways:

  Real-world connections: By presenting science concepts within the context of solving real-world environmental challenges, students gain a deeper understanding of the material and become more invested in their learning.
  Hands-on learning: Students participate in a variety of hands-on activities, experiments, and projects that encourage critical thinking, problem-solving, and collaboration.
  Interdisciplinary approach: The curriculum integrates multiple subject areas, including science, technology, engineering, and math (STEM), as well as social studies, language arts, and environmental education, to provide a well-rounded learning experience.
  As family members and caregivers, your support and involvement play a crucial role in your student's success. Here are some ways you can support their learning:

Encourage curiosity: Ask your student about what they learned in school, and engage in conversations about science and the environment to foster their curiosity.
Reinforce learning: Help your student with homework and projects, and encourage them to explore additional resources related to the topics they are studying.
Connect with the school: Attend parent-teacher conferences, join school committees, and participate in school events to stay informed about your student's progress and the Green Ninja curriculum.
Throughout the course of the Green Ninja program, students will develop essential skills, such as critical thinking, problem-solving, communication, and collaboration. By participating in this engaging and interdisciplinary curriculum, they will be better prepared to understand and address the complex challenges of the 21st century.

We look forward to partnering with you on this exciting learning journey and welcome any questions or feedback you may have. Together, we can support our students in becoming informed and responsible citizens who can make a positive impact on the world around them.

Thank you,
The Team at Green Ninja

- Along with the letter home, there is a QR code that can be scanned that links to a YouTube video that teaches parents about the design of the program.

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

- Materials provide resources and strategies for caregivers to help reinforce student learning and development. Throughout the grade bands (6,7,8), each unit of learning has a Home to School Connection outlined.
    - For example, in the Getting Started section of each chapter, Home to School Connections are provided that suggest activities in the chapter that family members or caregivers can get involved with and also indicate checkpoints so they can look at student progress.
    - The 6th Grade Course Overview includes information to be shared with families and caretakers that states, “As family members and caretakers, your support and involvement play a crucial role in your students' success. Here are some ways you can support their learning. 1. Encourage Curiosity: Ask your student about what they learned in school, and engage in conversations about science and the environment to foster their curiosity. 2. Reinforce Their Learning: help your student with homework and projects, and encourage them to explore additional resources related to the topics they are studying. 3. Connect with the School: Attend parent-teacher conferences, join school committees, and participate in school events to stay informed about your student's progress and the Green Ninja Curriculum.”
    - For the grade 6 unit on Ecosystems, the following information is shared: “Green Ninja curriculum connects classroom learning to everyday experiences in the home. It also provides many ways for parents to stay connected to the classroom. During the course of this unit, encourage parents to take their students to visit waterways, marshes, or even city parks. The best way to learn about ecosystems is to see them in action.”

- Grade 6, Lesson 2.4, My Own Ecosystem Study, Home to School Connections, states, “Students are embarking on a unit-long study of their local ecosystems. Parents can get involved by going to their ecosystem study locations with them.”
- Lesson 2 contains opportunities for parents to be involved, such as taking a family field trip so students can gather data for their lessons and inviting parents to view persuasive letters constructed by their students in class.

Materials include information to guide teacher communications with caregivers.

- Materials include teacher guidance for communicating with caregivers.
  - For example, every unit includes a Home to School Connections section providing teacher guidance on how to involve students' families to deepen student learning.
  - Each Unit Overview gives suggestions the teacher can provide to caretakers for monitoring students' progress. The Unit 3, Reducing Pollution and Waste, Overview, offers “specific opportunities for parents to monitor student progress: Parents can be invited to class to see students’ presentations of their four-square posters containing recommendations to reduce the impact of pollution and trash.”
- Materials include specific opportunities for parent involvement, such as, “Parents can be a source of non-working cell phones needed in this lesson. Lesson 1.3 What is Inside a Smartphone? Students can ask their family what they do with their old cell phones or other electronics and can research local electronics recycling programs together. Then, actually, clean out the house and take the old devices to the electronics recycling center.”

Green Ninja Middle School Science Grade 6

Indicator 8.1

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

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The material shows clear alignment to the TEKS and ELPS that includes unit and lesson progression. A scope and sequence document for the TEKS and ELPS is provided and integrated into the Standards section of each Grade and Unit Overview in an accessible format that is easy to use and modify. For example, teachers can sort the standards either by grade, unit, or lesson.
- Located in the Getting Started section of each lesson, the sequencing of the instruction per unit is found under the Lesson Plan section stating, "This is the suggested sequence of learning activities for this lesson. Note that session times are estimates. Depending on student' progress, the sessions may be shorter or longer." For example, the unit on Reducing Pollution and Waste Chapter 1: The Story of Trash Lesson 3.1 is part of a sequence of lessons (3.1 – 3.6) focused on a particular science topic or theme.

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

- There is evidence of teacher guidance throughout the learning units. For example, Teacher Resources provide a lesson plan and a Google Slide presentation to show students for each lesson. Materials include a 'Unit-to-Unit' connection presented in the Grade Overview section. This provides teacher guidance on how student connections to core concepts, SEPs, and RTCs occur across the grade.

- Each lesson includes a Tying it Together concept at the end of each Unit's lesson. This emphasizes how the lesson connects to what students are learning within the unit.
- For example, in Lesson 2.8 Ecosystems ABCs, the section states: "This lesson begins with the basic classifications (abiotic, biotic, cultural) of ecosystem components and the ways they are related. Subsequent lessons break down the finer aspects of each of these categories and their role in supporting healthy ecosystems. Students will learn that relationships, interactions, and shared processes can be transferable to other organisms and scenarios across multiple ecosystems."

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

- The materials provide extensions for students to review and enhance student knowledge with connections between other concepts.
- The Teacher Resources section of the materials within each lesson includes a Reading Companion that "can be used in various ways to enhance student learning" including practice of current content in the form of homework. "This summarizes and reinforces the key science concepts covered in the lessons."
- The materials show how the skills (SEPs and RTCs) are spiraled throughout the grade by highlighting where the Emphasizing boxes are located within the curriculum. These Emphasizing Skills and Concept boxes provide explicit directions to teachers for how to embed particular practices or recurring concepts directly into the instruction.
- Materials include teachers guidance in the standards tab with an easy-to-use format so that teachers could easily see how different practices and concepts are spiraled through the year. For example, in the Lesson 2.37 Ecosystems Unit Assessment and Reflection, the materials include the following statement, "This lesson wraps up the ecosystem unit with a unit assessment and reflection on learning throughout the unit."

Green Ninja Middle School Science Grade 6

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

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

Meets | Score 2/2

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

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

Evidence includes but is not limited to:

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

- The materials provide teacher guidance through a Getting Started section at the beginning of each chapter within a unit that provides an overview, roadmap connections, chapter vocabulary, reading companion, and chapter phenomena. The slide deck provides technology presentations of key pieces of the lesson and activities ready to present to students, as well as tips to prepare for instruction. These materials include overview documents to support teachers in understanding how to use all materials and resources as intended.
- Materials provide objectives and support to enhance student learning. For example, in Unit 1, Chapter 1, Lesson 1.4, the students will utilize text information, technology, and research-based instructional strategies.
- Materials contain links to embedded technology in the teacher guide as options for teachers to use to support and enhance student learning of science concepts.

Green Ninja Middle School Science Grade 6

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

- The materials include science standards correlations for units, lessons, and activities within the context of the grade level or course in teacher guidance documents and online resources.
- Cross-curricular connections are made within lessons in each unit of study in ELA and Math. Math extensions are included in some lessons. For example, in Lesson 2.27 Variation Part III, the blue emphasis box gives guidance to relate mathematical terms mean, median, and mode to the Lima Bean Phenomena Investigation.
- Each unit has a Literacy section that provides links to reading companions, vocabulary, and additional reading resources from Newsela.

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

- Materials include a comprehensive list of all equipment and supplies needed to support instructional activities. Items are differentiated between materials provided by the school/teacher, those that are optional, and those that are part of the Green Ninja Kit, as well as alternative materials where applicable.
- For example, in the grade 6 Course Overview, both lists can be found with embedded links and an option to export the list as a CSV file that can be used to make the lists available in other software applications.
- For example, in the Unit 2 Ecosystems Overview the Materials Tab lists every material required, with each accompanying lesson, as well as alternative materials where applicable.
- For example, in Chapter 1: Inside a Smartphone, it describes how to use the Post Its for Lesson 1.4 Smartphone Materials Resources Research Part 1.

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

- The materials provide teacher guidance for safety practices and grade-appropriate use of safety equipment during investigations, in accordance with Texas Education Agency Science Safety Standards. This list can be found in the Safety Guidelines section located in the lessons. Chemicals referenced in the Safety Guidelines sections of the lessons are accompanied by MSDS documents.
- The grade 6 Course Overview Materials tab lists suggested practices for Field Investigations listing possible misconceptions/things to avoid.
- In Lab Activities, Safety Guidelines state: Danger: Know which allergies and sensitivities your students have, and be prepared for emergencies. Be aware of student allergies to food items such as raw eggs, milk products, food coloring, nuts, and flour. Be aware of student allergies to latex gloves, balloons, chalk, rubber tubing, bees, and other stinging insects, pollen, feathers, chemicals, plants, or animals. Before any activity involving possible allergens, review the guidance in the CDE Science Safety Handbook. Require students to complete the appropriate form listed in the CDE Science Safety Handbook. Maintain a list of emergency medications and procedures to use if a student is exposed. Warning: Keep food outside the laboratory.

Green Ninja Middle School Science Grade 6

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.

- Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities. Suggested sequences of learning activities are noted as a clock in each of the lessons. Depending on student's progress, the sessions may be shorter or longer. Extension activities allow teachers to extend time for local needs in scheduling.
    - For example, in Lesson 4.8 Forces, there is a time estimate next to the clock icon for Activity 2 (model balloon rocket), suggesting the amount of time needed to complete the activity.
    - For example, in Lesson 2.17 Field Research Part I, there is a total time of about 45 minutes next to the clock icon at the end of the lesson plan indicating the time required for all activities in the lesson to be complete.

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 that must be taught in a specific order following a developmental progression. Each Unit has a Getting Started tab that provides a Unit Roadmap, a conceptual drawing that includes all of the elements covered within the unit. Lessons are organized into units by topic, broken into chapters that guide students to solve a challenge using scientific methods and end in a culminating experience. The lessons within the unit sequence the content in a developmentally appropriate way to accomplish the unit tasks.

Green Ninja Middle School Science Grade 6

- In the 6th Grade Unit Minerals, the Roadmap provides an overview of the storyline: The Earth's systems and life sciences that create and maintain intact, healthy ecosystems. The unit develops the students' scientific and personal connection to natural areas near the students' homes or schools.

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

- The grade 6 materials include 129 lessons at approximately 45 minutes in length, which are designed to be completed in a school year. Materials provide strategic guidance for modification to the lesson sequence. For example, the material states: "The first chapter in each unit establishes the unit challenge and the last chapter assesses it, but each interior chapter of the unit stands alone as a cohesive piece that teachers can easily move around to meet their needs."
- The materials include additional extensions and resources, which can supplement the year's long content if the pace of a class has moved faster than outlined in the standard materials. For example, in all chapters of each lesson in the 6-8 grade band, the Chapter Review Lesson has an extension activity that has students explore a career website and answer the following questions: "What are some examples of green careers that are highlighted on the site? How do these careers contribute to a sustainable future? What education and training are typically required for green careers? How do the salaries and job prospects compare to traditional careers in similar fields? Are there any success stories or case studies of individuals who have transitioned to green careers from other fields? What steps can students take to prepare themselves for a career in the green industry?"

Green Ninja Middle School Science Grade 6

Indicator 9.1

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. Student documents have clear titles and headings with consistent formatting and sufficient white space to support student attention. Some documents include the strategic use of color, such as the Reading Companions.
    - For example, the Google Slide deck that accompanies each unit uses appropriate-sized font and white space. The slides employ color coding and symbols to indicate activities, discussions, and important vocabulary words consistently across units.
- Materials include a clear heading/title for each page, while subheadings have a clear hierarchy.
    - For example, The Unit 1 Overview page begins with a heading of Introduction followed by bulleted (with specific icons) relevant subheadings of Challenge, Science Methods, and Culminating Experience, following a logical progression.

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

- Materials consistently embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. The activities within each unit include student handouts and presentation slides that have clear, visually engaging images that support student learning. These images can be found in the slide deck, reading companions, and unit roadmaps.

  - For example, slides of the Unit 1, Minerals, Google Slide Deck include appropriate images of different items like a penny (copper) and a pencil (graphite) and labels that clearly identify each object as students are introduced to the topic of minerals.
  - In Unit 1, Lesson 1.9, the phenomenon shows an image of a rock floating in a beaker.
- Each slide deck has color-coded slides to represent “Discussion Slides.” These are orange in order to showcase the skill for both the teacher and student without distraction.

Materials include digital components that are free of technical errors.

- Materials are free of technical errors, including spelling, grammar, punctuation, and incorrect content and information. Errors are not found in the teacher lesson resources or the slide deck presentation.
  - For example, Lesson 3.2, The Story of Trash, has zero technical errors as it is free of spelling, grammar, and punctuation errors.
- Materials are free of inaccurate content, materials, or information. Each worksheet (embedded or linked) does not contain inaccurate content information.
  - For example, the Pre-Assessment for Unit 2, Ecosystems, has clear and accurate information included in the Answer Key, as well as additional background information explaining the content in the Teacher Background Section.

Green Ninja Middle School Science Grade 6

Indicator 9.2

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Materials integrate digital technology and tools that support student learning and engagement. The PocketLab activities are strategically integrated to provide students with real-time data for lab activities.
    - For example, in Unit 4, students are challenged to determine what waves are (energy transported between locations) by experimenting with a variety of materials in a PocketLab activity.
    - Digital simulations are strategically integrated to provide students with engaging, interactive experiences. In Unit 3, Lesson 7, students complete a PhET interactive on States of Matter.
- Materials provide digital technology and tools that enhance student learning through such features as simulations and learning games.
    - For example, in Lesson 4.29, Wave Behavior Mystery Box, students complete a PocketLab simulation to “apply their learning about light and sound wave behavior.”
    - In Lesson 2.10, Earth Systems Deep Dive Part I, “students will play the Green Ninja Carbon Command game which visualizes how energy and matter move through the different Earth systems. Finally, they start reading some detailed scenarios about those interactions”

- Materials provide teacher guidance for using simulations, interactives, and related activities to support student learning. Teacher guidance includes suggestions for time and pacing, as well as ways to assist students with making observations, asking questions, collecting data, and participating in discussions. The digital technology provided can be found in the Teacher's Guide and/or digital presentation (Google Slides) materials.

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

- Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content.
    - For example, materials provide opportunities for students to obtain, evaluate, and communicate information using digital tools. These opportunities can be found in the student digital materials (PhET simulations and PocketLab activities) and Teacher's Guide and/or digital presentation (Google Slides) materials.
    - For example, Lesson 4.29, Wave Behavior Mystery Box, contains an Emphasizing Structure and Function call out box that states, “In this debrief, be sure to emphasize that different materials (‘structures’) have different behaviors (‘functions’). A cotton ball clearly has a different structure than a piece of wood and they interact with sound differently. Even though students may not see a ‘structural’ difference between a white piece of paper and a black one, there actually is a difference. The chemical structures of the dyes used in the paper differ (including the internal structure of the atoms, which is outside the scope of middle school). But the point is that there may be structures that students cannot see that are affecting the material's function.”
    - In Lesson 3.7, students use a computer model simulation to evaluate changes in an object's state by adding thermal energy. This addresses 6.5B of evaluating cause and effect relationships.
- PocketLab activities are designed for students to experience real world applications of the content.
    - For example, in Lesson 4.29, Wave Behavior Mystery Box, students complete a PocketLab simulation to “apply their learning about light and sound wave behavior.”
    - In Unit 4, students are challenged to determine what waves are (energy transported between locations) by experimenting with a variety of materials.
    - In lesson 4.26, students use the PocketLab device to analyze wave patterns in a bucket of water. This task addresses 6.5C, “analyze how differences in scale, proportion, or quantity affect a system's structure or performance.”

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

- Materials integrate digital technology that supports student-to-student collaboration.
    - For example, in Lesson 4.42, Reducing Our Ecological Footprint, “students share their infographics and provide feedback on other students’ infographics.”
    - In Lesson 2.10, Earth Systems Deep Dive Part I, students compete in the Green Ninja Carbon Command game, discussing the process and content during the activity.
    - Digital simulations are strategically integrated to provide students with engaging interactive experiences. In Unit 3, Lesson 7, students work collaboratively to complete a PhET interactive on States of Matter.

Green Ninja Middle School Science Grade 6

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

- Materials utilize digital resources often in Google-based formats, i.e., Google Docs and Google Slides. These formats are commonly implemented in a variety of learning management systems that are found in the classrooms.
- Materials often include files and instructions in PDF format, which enables the teacher to provide student access through a variety of learning management systems. In addition, it allows simplistic viewing on mobile devices when computers are not available.
- Materials are accessible and compatible with multiple operating systems and devices. The Unit Google Slide Decks are accessible and compatible with Chromebooks, iPads, PCs, and Apple computers, and or/smartphones, as well as editable on each of these platforms. For example, Unit 1, Minerals, Slide Deck can be edited and downloaded from the Unit Overview page.

Green Ninja Middle School Science Grade 6

Indicator 9.3

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

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

Not Scored

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

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

Evidence includes but is not limited to:

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

- Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression.
    - For example, the PocketLab and PhET Simulations are used to enhance the teaching of the TEKS aligned content. Each is used when a specific TEKS is being taught. Throughout the grade levels, these digital materials can be found in each lesson/unit in the Teacher's Guide.
    - The materials provide a rationale in the course overview for their approach to technology and how it enhances student learning.
    - The materials provide related TEKS and ELPS for online and digital components within the lessons. Hyperlinks are available where appropriate to facilitate planning and ease of use.
- Materials provide a rationale for the use of the digital and online components in the Grade 6 Course Overview, Technology and Teaching Section. It states, "In Grade 6, technology is frequently used to support students' learning. Unit 1 is all about technology as students learn about cell phones and create a more sustainable cell phone. Students use simple forms of technology to make different types of rocks. In Unit 2, very early forms of technology are observed in the lessons about early trade routes. Students could make observations using PocketLab while at their ecosystem study locations. A web-based game, Carbon Command, allows students to explore the phenomena of climate change as they answer questions. In Unit

3, students use a PhET simulation to learn about states of matter. Students design a simple water filter which is a form of technology. For some students, it may be the first time to use a microscope to examine cells. In Unit 4 students learn of the power of telescopes and the types of data they can provide. A rocket is a very powerful piece of technology and students study the forces required for a successful takeoff. PocketLab Voyager or PocketLab Weather can be used to learn about seasons. Students present their culminating project in a presentation platform of the teacher's choice."

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

- Materials provide clear instructions and tutorials on how to use the embedded technology.
    - For example, the 6th Grade Course Overview, Technology and Teaching Section gives teacher guidance on how to implement PocketLab Activities, including a video tutorial as well as a PDF of both student instructions and teacher instructions.
- Materials include professional development videos and training for teachers to continue to develop their skills and knowledge in using the embedded technology to support and enhance student learning. Short "Crash Courses" are available, as well as (Zoom) Green Ninja Office Hours where teachers can ask questions and get guidance on embedding technology. All Day Professional Development Opportunities are also available in addition to the Course PocketLab Page that includes video tutorials.

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

- Materials are available to parents and caregivers to support student engagement with digital technology and online components.
    - For example, all of the online simulations are accessible at home or any other location with internet access.
    - The majority of the worksheets and activities are included in PDF format to easily facilitate learning outside of the classroom.
- In the 6th Grade Course Overview, materials provide a PDF letter that teachers can share with families outlining the program and how caregivers can support their students' learning. It encourages families and caregivers to encourage curiosity in their students, get involved with the school and reinforce learning. This can be easily shared through any school's Learning Management System.
- Simulations, Green Ninja Show Videos, and Green Ninja Games like Carbon Command and Carbon Runner, are available on Green Ninja's Website without a required log-in, so they are easily accessible to families and caregivers to help support student engagement.