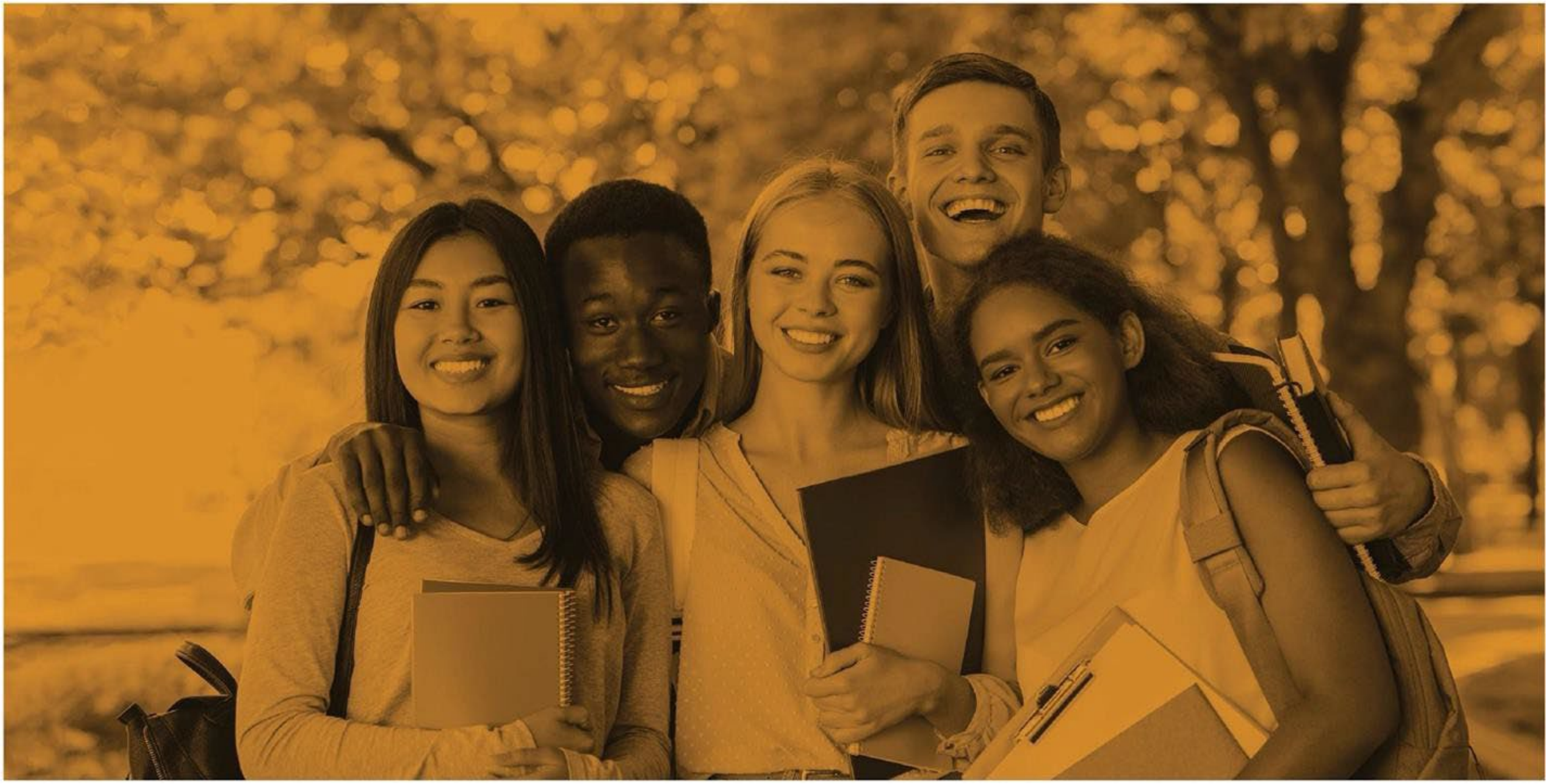

High-Quality Instructional Materials

OFFICE OF STANDARDS AND LEARNING

SCIENCE **Publisher – Curriculum Associates**

OKLAHOMA Education

Oklahoma Instructional Materials Evaluation Rubric

Instructional materials selection is an important district decision, and conducting a thorough review of instructional materials at the local level is essential in ensuring the adoption of high-quality instructional materials that meet the needs of students within a district. This evaluation rubric is designed to offer an evaluation that districts can utilize to determine how well instructional materials align with the Oklahoma Academic Standards and other criteria for high-quality instructional materials. The evaluation rubric includes key considerations for high-quality instructional materials and outlines three **Gateways** for evaluating materials. Each Gateway provides a **criterion**, related **indicators**, and **guiding/key questions**. Additionally, **priority indicators** are indicated with an asterisk (*) as they have been deemed most essential to a quality program. Each **indicator** is evaluated as Not Representing Quality, Approaching Quality, or Exemplifies Quality using a 0-1-2 or 0-2-4 scale score.

All scores should be based on evidence directly observed in the instructional materials, not inferences. The evaluation rubric helps reviewers determine whether the materials meet the quality thresholds for each Gateway. Reviewers proceed to the next Gateway if the materials meet the thresholds for **Exemplifies Quality** or **Approaching Quality**. If the materials do not meet these thresholds, reviewers stop and do not advance to the next Gateway.

Gateway 4 ensures alignment with Oklahoma Statutes (70 O.S. § 24-157) and the Oklahoma Administrative Code (OAC 720:10-5-3).

Gateway 1 Alignment and Coherence			Gateway 2 Instructional Support			Gateway3 Supports and Usability
	Exemplifies Quality	➡		Exemplifies Quality	➡	
	Approaching Quality	➡		Approaching Quality	➡	
	Not Representing Quality	☒		Not Representing Quality	☒	

Title of Material	Stile Education	**Grade(s) Evaluated**	
Publisher	Curriculum Associates	**Reviewer**	

Review Summary

Gateway	Criterion	Score	Rating
1: Alignment and Coherence	1.1: Alignment and Accuracy	_ / 14	
	1.2: Coherence	_ / 14	
	Gateway 1 Subtotal	_ / 28	
2: Instructional Supports	2.1 Student Learning	_ / 8	
	2.2 Teacher Supports	_ / 8	
	2.3 Assessments	_ / 8	
	Gateway 2 Subtotal	_/ 24	
3: Access and Technology	3.1 Access	_ / 10	
	3.2 Technology	_ / 8	
	Gateway 3 Subtotal	_/ 18	
4: Statutory and Regulatory Fidelity	4.1 O.S. 24-157	YES / NO	
	4.2 OAC 720:10-5-3	YES / NO	
Overall Rating **Exemplifies Quality:** All Gateways Exemplifies Quality. **Approaching Quality:** All Gateways Approaching Quality or Better. **Not Representing Quality:** Any Gateway is Below Approaching Quality.		**Total Score** ____/ 70	**Final Rating**

Gateway 1: Alignment and Coherence

High-quality instructional materials are aligned and coherent with the **Oklahoma Academic Standards for Science (OAS-S)** and the grade levels under review, integrating the three dimensions **Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), and Crosscutting Concepts (CCCs)** to support students in engaging in scientific practices while building understanding of core ideas and connections across domains. Educators determine the Gateway rating by analyzing evidence from the instructional materials and scoring indicators tied to each criterion.

Gateway 1 Overview	Indicators	Available Points
Criterion 1.1: Alignment and Accuracy Materials support learning of grade- and subject-level content and skills, engaging students in the three dimensions of science: Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), and Crosscutting Concepts (CCCs) and include a variety of instructional strategies.	**1a – 1e**	**14**
Criterion 1.2: Coherence Materials reflect the three-dimensional structure of the Oklahoma Academic Standards for Science (OAS-S), supporting coherence across lessons, units, and grade levels by connecting Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), and Crosscutting Concepts (CCCs) in ways appropriate to student development.	**1f – 1j**	**14**
Total Points		**28**

Criterion 1.1 Alignment and Accuracy	Materials support the learning of grade- and subject-level content and skills, engaging students in the three dimensions of science: Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), and Crosscutting Concepts (CCCs) and include a variety of instructional strategies.	
Indicators	**Guiding/Key Questions**	**Stile Evidence**
***1a. Materials provide a coherent sequence of activities and texts that build content knowledge and skills aligned with the OAS-S.**	Do the materials align with the standards and build knowledge progressively across lessons, chapters, and units?	**Scope and sequence** The Stile Oklahoma Teacher Guide provides a visual scope and sequence (pp. 6–11) mapping every unit to specific terms and weeks, with OAS-S codes, driving questions, and pacing shown for all three grade levels. • Grade 6: 8 units across 4 terms — e.g., Active Earth (6.ESS1.4, 6.ESS2.1–2.3, 6.ESS3.2) in Term 2; States of Matter (6.PS1.4) and Energy (MS.ETS1.4) and Heat (6.PS3.3–3.4, 6.PS4.2) in Terms 3–4. • Grade 7: 7 units — e.g., The Importance of Biodiversity (7.LS2.4–2.5, MS.ETS1.1–1.2) in Term 1; Climate Change (7.ESS3.3–3.5) in Term 4. • Grade 8: 8 units plus an OSTP Test Preparation unit in Term 4 — confirming the full curriculum fits within the Oklahoma school year. **Three-dimensional progression within and across grade levels** The Three-dimensional progression sections of the Teacher Guide (6th pp. 50–51, 7th pp. 88–89, 8th pp. 126–127) show how SEPs, and CCCs build coherently within and across each grade level. Examples: • SEP: Developing and Using Models (6th): students create physical models of cells to explain structure and function, build models of the water cycle and convection currents to describe unobservable mechanisms, and use the particle model to explain changes of state in States of Matter. • SEP: Developing and Using Models (7th): students develop and modify models to represent unobservable energy flow between organisms in Ecosystems, create models of hydroelectric dams to investigate how water height affects kinetic and potential energy, and build molecular models to show atomic composition and explore conservation of mass in chemical reactions. • SEP: Developing and Using Models (8th): students use mathematical representations as models to describe wave properties and explain how amplitude relates to energy (Waves); construct Earth-sun-moon system models to explain the causes of seasons, eclipses, and lunar phases (Our Place in Space); and model point mutations to determine their effects on proteins and organism traits (Genetics), applying the practice at greater abstraction and mathematical sophistication than in earlier grades. • CCC: Cause and Effect (6th): students identify cause and effect relationships in Body Systems (sensory receptors detect stimuli and transmit signals to the brain), use the concept to explain mineral abundance along specific coastlines in Active Earth, and apply it to predict how adding or removing thermal energy causes changes in particle arrangement in States of Matter. • CCC: Cause and Effect (7th): students examine probabilistic cause and effect as they analyze how predator-prey interactions shape population changes in Ecosystems, then engage with cascading, multi-causal effects in Climate Change (where rising global temperatures drive changes in biodiversity, sea levels, and weather patterns simultaneously), and connect macroscopic patterns to atomic-level causes in Physical and Chemical Change. • CCC: Cause and Effect (8th): students apply cause and effect at increasing complexity, testing how changes

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to electromagnet strength affect the function of a transport solution (Non-contact Forces), considering how genetic mutations cause harmful, beneficial, or neutral effects on proteins and organism traits (Genetics), and explaining how genetic variation causes differential survival and reproduction rates across populations over time (Biological Changes Over Time).

Three-dimensional progression

Through The Stile Curriculum, students will build on their existing knowledge across all three dimensions of the Oklahoma Academic Standards.

Disciplinary Core Ideas

6th Grade units incorporate Disciplinary Core Ideas from all domains. In Cells and Body Systems, students extend their prior knowledge of the structures that support an animal's survival, growth, behavior, and reproduction. They learn that all living things are made up of cells, which form tissues and organs. Students examine the special structures within cells using microscopes and learn their specific functions. In Body Systems, students dig deeper by closely examining the body's systems, recognizing that receptors respond to different types of input and transmit signals to the brain along nerve cells, resulting in behaviors or memories.

In Earth Systems, students elaborate upon their knowledge of the Earth's spheres and the distribution of water across the planet. They discover the processes involved in the water cycle, and how the movement of water within the atmosphere, combined with sunlight, plays a part in determining local weather patterns and climate. In Active Earth, students build on this understanding to explore the cycling of energy and matter through Earth's processes, applying it to interpret the fossil record and to consider the likelihood of future natural hazards in specific regions.

In States of Matter, students apply the particle model to gain an understanding of the properties of each of the states of matter. Students discover the phenomena of conservation of energy and energy transfer during the Energy unit. In Heat, they build on this knowledge as they learn about conduction, convection, and radiation of heat energy. Students apply their knowledge of the engineering process to define a problem, identify constraints, and develop solutions according to a brief.

Science and Engineering Practices

Science and Engineering Practices are embedded in all units. In Cells, students plan and carry out an investigation to provide evidence that living things are made of cells. They further build on this practice in Heat, by investigating the relationship between energy transfer and temperature. In Body Systems, students obtain, evaluate, and communicate information, and evaluate the effectiveness of their model lung in demonstrating human breathing.

Students have multiple opportunities to develop and use models to explain scientific phenomena. During 6th Grade, they create models of cells that describe the function of organelles, as well as models of the water cycle and convection currents. In Active Earth, models describe the cycling of materials in Earth's systems. In States of Matter, models represent the molecular structure of substances.

Crosscutting Concepts

Crosscutting Concepts are also addressed in every unit. The concept of cause and effect is explored in Body Systems, where students explore the detection of sensory inputs by receptors in the brain. Students build upon their existing knowledge of structure and function in Cells by relating this to specialized cells within the body. They also recognize the interaction of systems within the body through homeostasis, and engage with systems and system models through Body Systems.

In Active Earth, patterns support continental drift theory and allow students to make predictions about the likelihood of earthquakes in certain locations. Students construct explanations using evidence to explain the cause of mineral abundance along specific coastlines. In States of Matter, students describe changes in particle arrangement when thermal energy is added or removed.

The concept of energy and matter is explored in Energy, where students develop an understanding that energy takes different forms, and in Heat, where they build and test a solar oven.

Developmental progression across grade levels
The 'Building Conceptual In-Depth Understanding' section of the Teacher Guide (pp. 40-45) maps how each DCI develops developmentally from 6th to 8th grade across all three science domains.
• Life Science (p. 42): cells and body systems (6th) → energy flow, photosynthesis, ecosystems (7th) → genetics, reproduction, biological changes over time (8th).
• Earth and Space Science (pp. 44): Earth's systems and hazards (6th) → climate change, resources (7th) → Earth within the Solar System (8th).
• Physical Science (pp. 40): particle model, states of matter, energy (6th) → atomic structure, chemical reactions, conservation of energy (7th) → forces, motion, waves (8th).
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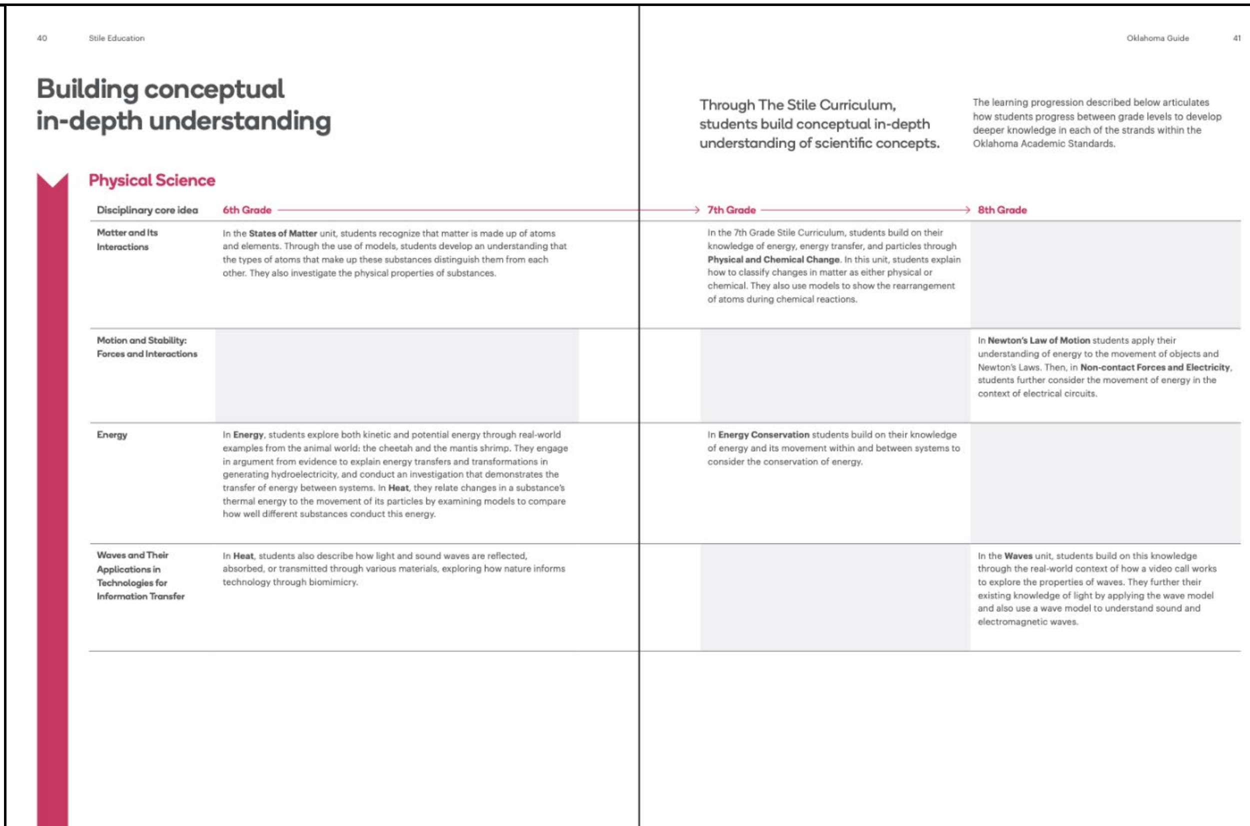


40 Stile Education

Oklahoma Guide 41

Building conceptual in-depth understanding

Through The Stile Curriculum, students build conceptual in-depth understanding of scientific concepts.

The learning progression described below articulates how students progress between grade levels to develop deeper knowledge in each of the strands within the Oklahoma Academic Standards.

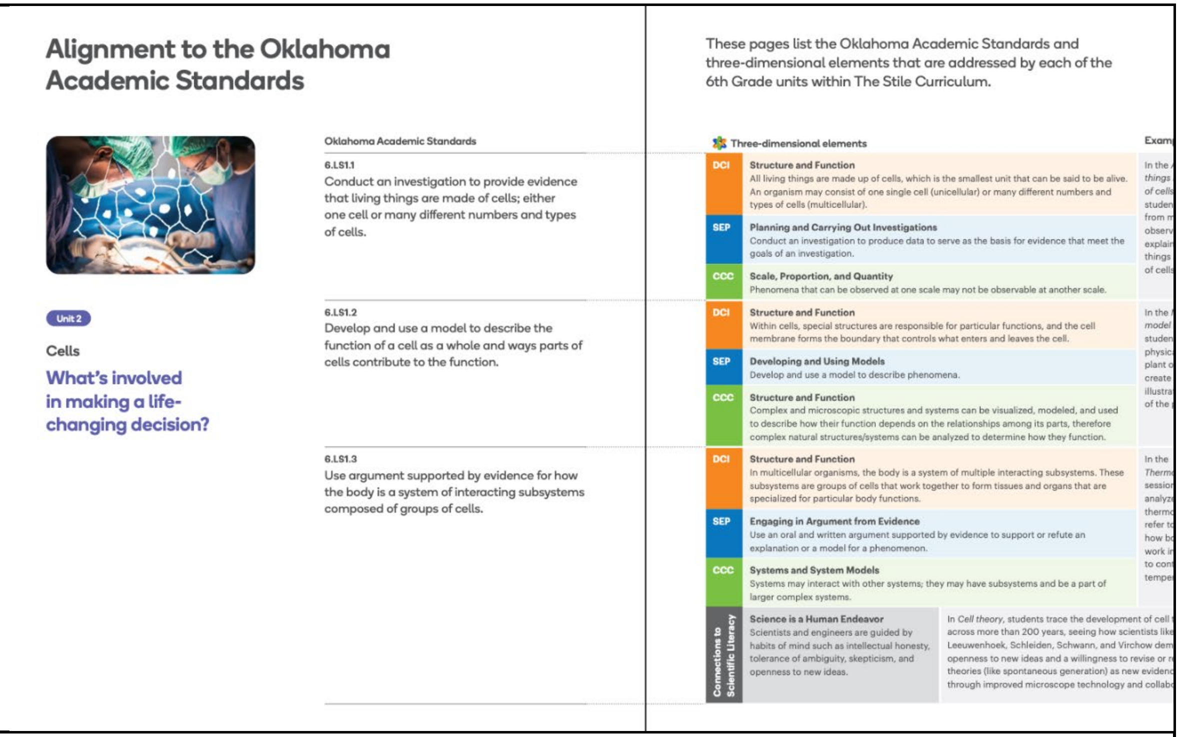
Physical Science

Disciplinary core idea	6th Grade	7th Grade	8th Grade
Matter and Its Interactions	In the **States of Matter** unit, students recognize that matter is made up of atoms and elements. Through the use of models, students develop an understanding that the types of atoms that make up these substances distinguish them from each other. They also investigate the physical properties of substances.	In the 7th Grade Stile Curriculum, students build on their knowledge of energy, energy transfer, and particles through **Physical and Chemical Change**. In this unit, students explain how to classify changes in matter as either physical or chemical. They also use models to show the rearrangement of atoms during chemical reactions.	
Motion and Stability: Forces and Interactions			In **Newton's Law of Motion** students apply their understanding of energy to the movement of objects and Newton's Laws. Then, in **Non-contact Forces and Electricity**, students further consider the movement of energy in the context of electrical circuits.
Energy	In **Energy**, students explore both kinetic and potential energy through real-world examples from the animal world: the cheetah and the mantis shrimp. They engage in argument from evidence to explain energy transfers and transformations in generating hydroelectricity, and conduct an investigation that demonstrates the transfer of energy between systems. In **Heat**, they relate changes in a substance's thermal energy to the movement of its particles by examining models to compare how well different substances conduct this energy.	In **Energy Conservation** students build on their knowledge of energy and its movement within and between systems to consider the conservation of energy.	
Waves and Their Applications in Technologies for Information Transfer	In **Heat**, students also describe how light and sound waves are reflected, absorbed, or transmitted through various materials, exploring how nature informs technology through biomimicry.		In the **Waves** unit, students build on this knowledge through the real-world context of how a video call works to explore the properties of waves. They further their existing knowledge of light by applying the wave model and also use a wave model to understand sound and electromagnetic waves.

Standards-level alignment

Each unit's alignment pages list the exact DCI, SEP, and CCC for every Oklahoma standard, with a named example lesson (which we call a "session" in Stile). A Science Standard Index (e.g., Grade 6 pp. 80) and Lab Alignment Index (pp. 82) give reviewers a direct, verifiable map from every OAS-S code to the specific Stile unit and hands-on session where it is addressed. For example:

- 6.ESS2.3 (fossil and rock patterns as evidence of plate motion): DCI Plate Tectonics, SEP Analyze and Interpret Data, CCC Patterns → 'Continental drift' session (Active Earth).
- 7.PS3.1 (graphical displays of kinetic energy relationships): DCI Definitions of Energy, SEP Analyze and Interpret Data, CCC Scale, Proportion, and Quantity -- 'Fish cannons: kinetic energy and speed' session (Energy Conservation).
- 8.PS4.1 (mathematical representations of waves, amplitude and energy): DCI Wave Properties, SEP Using Mathematics and Computational Thinking, CCC Patterns -- 'Wave properties' session (Waves).

		 Alignment to the Oklahoma Academic Standards Unit 2 Cells What's involved in making a life-changing decision? Oklahoma Academic Standards 6.LS1.1 Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells. 6.LS1.2 Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function. 6.LS1.3 Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. These pages list the Oklahoma Academic Standards and three-dimensional elements that are addressed by each of the 6th Grade units within The Stile Curriculum. Three-dimensional elements DCI Structure and Function All living things are made up of cells, which is the smallest unit that can be said to be alive. An organism may consist of one single cell (unicellular) or many different numbers and types of cells (multicellular). SEP Planning and Carrying Out Investigations Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of an investigation. CCC Scale, Proportion, and Quantity Phenomena that can be observed at one scale may not be observable at another scale. DCI Structure and Function Within cells, special structures are responsible for particular functions, and the cell membrane forms the boundary that controls what enters and leaves the cell. SEP Developing and Using Models Develop and use a model to describe phenomena. CCC Structure and Function Complex and microscopic structures and systems can be visualized, modeled, and used to describe how their function depends on the relationships among its parts, therefore complex natural structures/systems can be analyzed to determine how they function. DCI Structure and Function In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions. SEP Engaging in Argument from Evidence Use an oral and written argument supported by evidence to support or refute an explanation or a model for a phenomenon. CCC Systems and System Models Systems may interact with other systems; they may have subsystems and be a part of larger complex systems. Connections to Scientific Literacy Science is a Human Endeavor Scientists and engineers are guided by habits of mind such as intellectual honesty, tolerance of ambiguity, skepticism, and openness to new ideas.
1b. Materials actively <u>engage students</u> with SEPs, DCIs, and CCCs.	Are students using SEPs, DCIs, and CCCs to explore and deepen their understanding of science concepts?	**3D standards alignment** Every Stile unit is built around explicit three-dimensional learning. Each Oklahoma standard in the Teacher Guide is matched to specific DCI, SEP, and CCC elements with a named example session showing their integration in practice. For example, the following standards are addressed in specific lessons: • 6.ESS2.1 (develop a model to describe the cycling of water through Earth's systems): DCI Earth's Systems, SEP Developing and Using Models, CCC Energy and Matter -- 'Modeling the water cycle' session (Earth Systems), where students create a solar still to model the water cycle, calculate how efficiently it purifies water, and identify improvements to their model. • 7PS1.1 (Develop and use models to describe the atomic composition of simple molecules and extended structures): DCI Structures and Properties of Matter, SEP Developing and Using Models, CCC Scale, Proportion and Quantity – covered in 'Modeling chemical reactions' session (Physical and Chemical Change), where students create and use models of simple molecules, showing their atomic composition and exploring the law of conservation of mass. • 8.PS2.1 (apply Newton's Third Law to design a solution involving two colliding objects): DCI Forces and Motion, SEP Constructing Explanations and Designing Solutions, CCC Systems and System Models -- 'Science and Society: Speed limits in built-up areas' session (Newton's Laws of Motion), where students use their understanding of Newton's Third Law to design a solution protecting pedestrians during a car collision.

Unit 3

Physical and Chemical Change

What does chemistry have to do with chocolate making?

Oklahoma Academic Standards	Three-dimensional elements		Example sessions
7.PS1.1 Develop and use models to describe the atomic composition of simple molecules and extended structures.	DCI	**Structure and Properties of Matter** Substances are made from different types of atoms, which combine with one another in various ways. Atoms form molecules that range in size from two to thousands of atoms. Solids may be formed from molecules, or they may be extended structures with repeating subunits (e.g., crystals).	In the *Modeling chemical reactions* session, students create and use models of simple molecules, showing their atomic composition and exploring the law of conservation of mass.
	SEP	**Developing and Using Models** Develop and use a model to describe unobservable mechanisms.	
	CCC	**Scale, Proportion, and Quantity** Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small.	
7.PS1.2 Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	DCI	**Structure and Properties of Matter** Each pure substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it. **Chemical Reactions** Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants.	In the *Identifying types of change* session, students observe, classify, and analyze evidence of various examples of physical and chemical change.
	SEP	**Analyze and Interpret Data** Analyze and interpret data to determine similarities and differences in findings.	
	CCC	**Patterns** Macroscopic patterns are related to the nature of microscopic and atomic-level structure.	
	Connections to Scientific Literacy	**Scientific Knowledge is Based on Empirical Evidence** Science knowledge is based upon logical and conceptual connections between evidence and explanations.	In *Chemical change* Part 1 and 2, students conduct an open-ended investigation, mixing two unknown powders with a colored liquid. They collect empirical evidence to determine which combinations of substances are responsible for each chemical change observed. They draw logical connections between their observations and their conclusions about what caused each change.

Three-dimensional progression across grade levels
SEPs and CCCs develop in sophistication across the 6-8 band. For more worked examples of this progression, see response 1a. Additional examples:

- SEP: Planning and Carrying Out Investigations (6th): students plan an investigation to collect data on the effect of exercise on heart rate, identifying variables and using the data as evidence to explain how body systems interact to maintain homeostasis (Body Systems, 6.LS1.3).
- SEP: Planning and Carrying Out Investigations (7th): students plan an open-ended investigation to determine the relationships between energy transferred, type of matter, mass, and change in temperature -- identifying independent and dependent variables and controls (Energy Conservation, 7.PS3.1).
- SEP: Planning and Carrying Out Investigations (8th): students plan an investigation to provide evidence that change in motion depends on the sum of forces and mass, designing a balloon car and evaluating how changing forces or mass impacts its performance (Newton's Laws of Motion, 8.PS2.2).

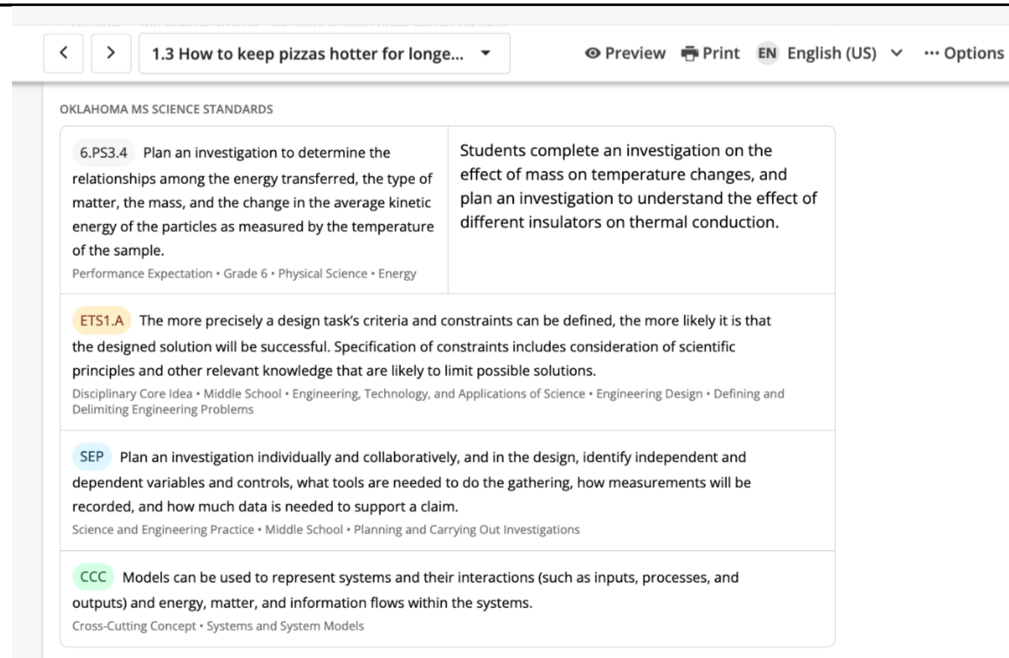
3D elements in Teaching Plans
Every unit's Teaching Plan identifies the Oklahoma standards addressed by each lesson, and the specific DCI, SEP, and CCC elements developed within it -- so teachers can see at a glance when a lesson explicitly covers a performance expectation.

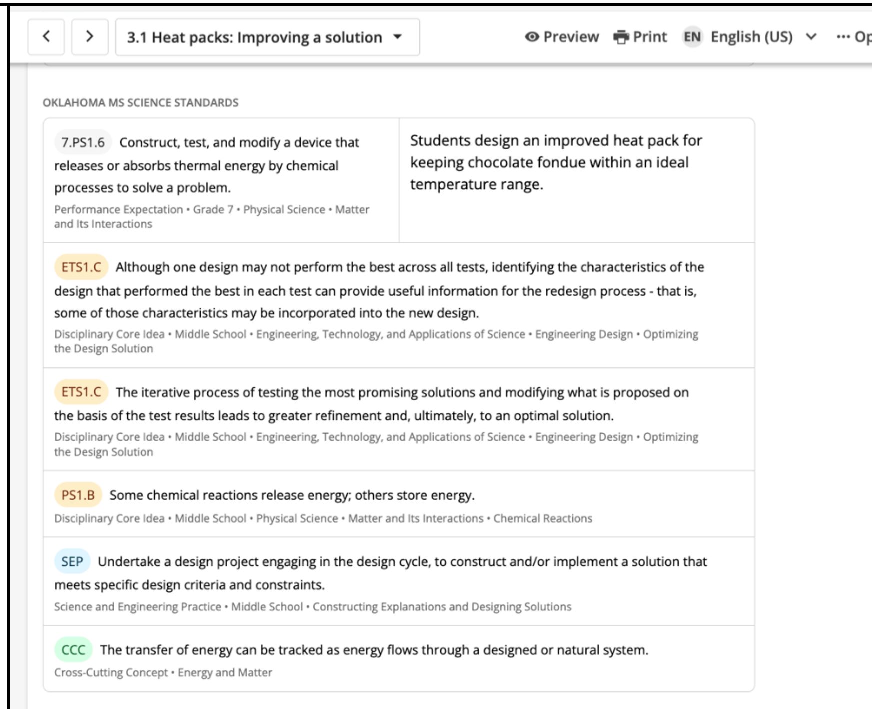
For example, the Teaching Plan for The Importance of Biodiversity (7th grade) maps session 2.2 'Making a claim using evidence' to DCI LS2.C (Ecosystem Dynamics, Functioning, and Resilience) and LS4.D (Biodiversity and Humans), SEP Engaging in Argument from Evidence, and CCC Stability and Change -- giving teachers a unit-level view of where each 3D element is developed and used.

3D elements in session plans
Within individual session plans, the three-dimensional structure is visible at the activity level. For example, in the 'Making a claim using evidence' session (The Importance of Biodiversity, 7.LS2.4), students:

- use a scaffolded Claim, Evidence, Reasoning routine to match evidence to claims about bee population

		decline (SEP: Engaging in Argument from Evidence), • analyze simulation data and graph patterns linking bee species diversity to crop production and ecosystem biodiversity (SEP: Analyzing and Interpreting Data; DCI: LS2.C Ecosystem Dynamics), • construct a written argument answering the unit question -- 'Do we need to save the bees?' -- integrating DCI: LS4.D (Biodiversity and Humans) and CCC: Stability and Change in a Key Question requiring claims supported by at least three pieces of data. The Key Question at the end of the session ('Propose a claim based on evidence and reasoning that answers the question: Do we need to save the bees? Draw on your understanding of bees' role in biodiversity and how this affects humans') is explicitly designed as a 3D assessment checkpoint, requiring students to integrate the SEP, DCI, and CCC in a single constructed response.
***1c. Learning objectives clearly incorporate the three dimensions of science and build progressively toward 3D learning.**	Do learning goals integrate SEPs, DCIs, and CCCs to support 3-dimensional understanding?	Stile's materials support three-dimensional learning at every scale: within individual sessions, across a unit, and across a full school year. The Teacher Guide makes this progression visible and navigable for teachers at each level. **Lesson-level scaffolding, learning goals, and Key Questions.** Every Stile session has an explicit learning goal written in student-friendly language that describes what students should know, understand, and be able to do by the end of the session. The relevant Oklahoma standard and its three-dimensional elements (DCI, SEP, and CCC) are identified in the teacher-facing session plan alongside the learning goal, so teachers can see at a glance what 3D elements are in play. Early questions in each session build foundational DCI knowledge and scaffold students progressively toward the Key Question, which directly tests the learning goal. When a session directly addresses an Oklahoma standard, the Key Question is three-dimensional, requiring students to integrate DCI, SEP, and CCC in a single constructed response. Model answers are released for all question types, giving both teachers and students a clear picture of what mastery looks like. Challenge Questions go beyond the learning goal for students who are ready to extend their thinking. • In 'How to keep pizzas hotter for longer, Part 1' (Heat, 6.PS3.4), the learning goal is stated in student-friendly terms as: 'Propose a method to determine which material is the best insulator.' The teacher-facing session plan maps this to DCI PS3.A, SEP Planning and Carrying Out Investigations, and CCC Systems and System Models. Earlier questions scaffold students through the context and relevant concepts before the Key Question asks them to design their own investigation method, a full 3D performance task.

		 • In 'Heat packs: Improving a solution' (Heat unit) the teacher-facing session plan maps this to PS1.B, SEP Constructing Explanations and Designing Solutions, and CCC Energy and Matter. Additionally, ETS1.C is addressed.

		 **Within a unit** Every unit's Teaching Plan includes a lesson-by-lesson 3D learning progression: a grid showing where each DCI, SEP, and CCC is developed, used, and assessed in a three-dimensional performance task across the unit's sessions. Not every session is three-dimensional; sessions that build toward a standard may focus on one or two dimensions. The progression makes clear how each session scaffolds toward the 3D Key Questions and summative assessment. In the [Waves Teaching Plan](#) (8th grade, 8.PS4.1 and 8.PS4.3), the lesson-by-lesson learning progression shows how SEP Developing and Using Models is progressively developed. Students build an initial group model of global communication in lesson 1, refine it with new understanding of sound waves in lesson 3, update it again after exploring light in lessons 5 and 6, and produce a complete, iterated model in lesson 15, where the 3D performance task marker indicates the element is formally assessed.

SESSION	LEARNING EXPERIENCE	CURRICULUM STANDARDS	ADJUSTMENTS
Modeling global communication Hands-on activity Materials required No laptops 45 mins	**Purpose** Motivate students to consider how global telecommunication is possible and model their current understanding of how it works. Then, allow students to reflect on the unit's Guiding Question and set up a Questions Board for the unit. **Learning Goals** 1. Model your current understanding of how a long-distance video call works **Preparation** • Print individual model templates, group model templates and Questions Board title cards. • Collect each student's models at the end of the session. **Materials** • printed individual model templates • printed group model templates • printed Questions Board title cards **How long could you cope without communication technology?** 10 mins No laptops • As a class, reflect on the importance of communication technology from a personal, social and global perspective. **Part 1: Create an individual model** 15 mins No laptops Notebooks • Students create their individual student models and then share them with their group. **Part 2: Create a group model** 10 mins No laptops • In groups, students use their individual models to create a group model. **Part 3: Create a Questions Board** 10 mins No laptops • Students use the questions they considered during their group model to create a Questions Board.	SEP Construct an explanation that includes qualitative or quantitative relationships between variables that predict and/or describe phenomena. CCC Models can be used to represent systems and their interactions (such as inputs, processes, and outputs) and energy, matter, and information flows within the systems.	• Adjust the unit's Guiding Question if needed. • If your class is familiar with a Questions Board, this session may take 30 minutes or less to complete. But if your class is new to this type of session, it could take up to 45 minutes.
1.1 Sound Practical activity Materials required 45 mins	**Purpose** Explore how speech sounds travel through air and other materials. **Learning Goals** 1. Explain how sound is transmitted between two places **Preparation** • Collect the required materials. **Materials** Each group of students will need: • medium bowl • 30 x 30 cm cling film/plastic wrap • approx. 2 g table salt • tuning fork • *optional:* large dish or tray	SEP Construct an explanation that includes qualitative or quantitative relationships between variables that predict and/or describe phenomena. PS4.A A sound wave needs a medium through which it is transmitted. CCC Models can be used to represent systems and their interactions (such as inputs, processes, and outputs) and energy, matter, and information flows within the systems.	

Within a grade level
The three-dimensional progression sections of the Teacher Guide (6th pp. 50–51, 7th pp. 88–89, 8th pp. 126–127) narrate explicitly how DCIs, SEPs, and CCCs deepen across the year. In 6th grade, SEP Developing and Using Models is introduced through cell models in Cells, extends to water cycle and convection current models in Earth Systems and Active Earth, and culminates with molecular structure models in States of Matter. Each application places the practice in a richer, more complex scientific context, as documented in the Oklahoma Teacher Guide (pp. 50-51).

Across grade levels
The scope and sequence shows how the same SEPs and CCCs recur in progressively more demanding contexts. SEP Planning and Carrying Out Investigations, for example, develops from structured investigations in 6th grade Body Systems (6.LS1.3), to structured open-ended investigations in 6th grade Heat (6.PS3.4), to investigations requiring students to identify variables and controls in 7th grade Energy Conservation (7.PS3.1), to student-designed experiments in 8th grade Newton's Laws of Motion (8.PS2.2). This progression is documented in the Teacher Guide and detailed with worked examples in responses 1a and 1b above.

1d. Materials connect science concepts to real-world phenomena and	Do materials provide authentic examples and applications?	Every Stile unit is anchored to a compelling, real-world phenomenon that drives student curiosity from the first session. Stile has developed a dedicated 'Stile is for Oklahoma' section in the [Teacher Guide](#) (pp. 20) with lessons specifically localized for Oklahoma students.

practices.		• 'What in the whirlwind?' (Earth Systems, 6.ESS3.2) connects directly to Oklahoma's position at the heart of Tornado Alley. Over two sessions, students investigate how large tropical storms and tornadoes form, explore real tornado frequency data, and discover why Oklahoma's flat, open landscape makes severe weather prediction both critical and challenging. • 'The Ozark Cavefish' (Ecosystems, 7.LS2.1) uses a rare, eyeless species found in the limestone caves of northeastern Oklahoma as the context for investigating how resource availability shapes populations and why human activity threatens fragile underground ecosystems. • 'Observing the Solar System' (Our Place in Space, 8.ESS1.3) uses Oklahoma's Black Mesa, a recognized Dark Sky Park, as the launch point for investigating how data from telescopes and space probes reveal patterns and properties of the Solar System. Beyond Oklahoma-specific contexts, every unit's phenomena are drawn from current, relevant real-world science. Units are introduced through guiding questions that make the scientific content immediately meaningful: 'How can we prevent plastic from harming marine life?' (Ecosystems, 7th grade), 'What does chocolate have to do with chemical reactions?' (Physical and Chemical Change, 7th grade), and 'Are we producing antibiotic-resistant superbugs?' (The Survival of Species, 8th grade). Career profiles within units connect science to real-world roles students can see themselves in. In Heat, the career profile features a head pizza chef, tying directly to the unit's investigation of heat transfer and insulation. In Physical and Chemical Change, the career profile is a professional chocolate taster, anchoring the chemistry content in a tangible, student-engaging context. Authentic application extends to summative assessment. Unit tests always include at least one application-style scenario grounded in real-world phenomena. Students encounter contexts such as the mimic octopus and the 1974 Arecibo message in the Waves unit test, and data from the Mars rover in the States of Matter unit test. Performance tasks similarly place students in authentic roles: designing a solution to save or replace bees (The Importance of Biodiversity), engineering a device to remove plastic waste from the ocean (Ecosystems), and building and testing a solar oven (Heat).
1e. Materials include a variety of instructional strategies (discussions, modeling, hands-on activities, projects, etc.) to engage students effectively.	Do materials support various instructional approaches within and across lessons?	Stile supports a wide range of instructional approaches within and across lessons, designed around the understanding that different students need different entry points into learning. The platform works as the perfect blend of interactive digital instruction, print-ready materials, and hands-on practical science. The Oklahoma Teacher Guide's overview section (starting pp. 14) grounds each instructional approach in research and provides teachers with practical guidance for implementation. **Variety of session (lesson) types** Each unit includes a deliberate mix of session types. Across a typical unit, students encounter classroom lessons, open-ended investigations, hands-on lab activities, engineering design challenges, research projects, Socratic seminars, Science and Society sessions, and career profile sessions. The Teaching Plan for each unit signals the lesson type for every session and includes a week-by-week planning guide, so teachers can see the instructional arc at a glance. Every unit also begins with a diagnostic pre-test to gauge prior knowledge, includes formative check-ins at key points, and concludes with a summative unit test. **Flexible delivery: digital, print, or both** Every Stile session (be it a classroom lesson, lab activity, or anything else!) can be delivered digitally through the platform *or* printed as a student worksheet, with no loss of content. Teachers choose the mode that suits their classroom on any given day, and many sessions are designed to work alongside hands-on activities regardless of whether students have devices open. This flexibility means Stile works in fully digital classrooms, one-to-one device settings, and low-device environments alike. Teachers can also edit any lesson in Stile to add, remove, or reorder

		content, and can build their own sessions from scratch using the platform's lesson-building tools. **Stile X: note-taking, review, and study** Stile X is a printed student workbook and study tool that accompanies every unit, designed to make the most of pen and paper alongside the digital curriculum. Each Stile X workbook has four sections: full-color worksheets that support sense-making with literacy exercises and creative activities; a glossary section where students write their own definitions to build vocabulary retention; a practice test with new revision questions and detailed model answers; and freeform note pages for active note-taking, sketching, and planning. All student work stays in one place. Stile X is built on five evidence-based learning strategies: retrieval practice, metacognition, spaced repetition, elaboration, and dual coding. These strategies are woven into the structure of every workbook, so students are not just completing activities but developing the study habits that support long-term retention. A case study from High Tech LA found that sixth graders using Stile X scored 4.5% higher than a comparison class (effect size 0.8), with teachers observing that students became more autonomous and confident in their written responses. Stile X is also available in Spanish. Example Stile Xs: • Waves • Newton's Laws of Motion • Energy Conservation **Hands-on activities and engineering challenges** Lab activities, hands-on investigations, and engineering challenges are central to Stile's instructional approach. Each is supported by a Lab Guide (example) with a demo video (example), material list, method, timing guidance, expected results, and tips from Stile's own teachers. Every lab and engineering challenge is standards-aligned, and the Lab Alignment Index in the Oklahoma Teacher Guide (pp. 82) maps each activity to its performance expectation. In Heat (6th grade, 6.PS3.4), the 'How to keep pizzas hotter for longer' open-ended investigation spans two sessions: students first design their own method for testing insulation materials, then carry out the investigation and use their results to recommend a solution to a real pizza delivery problem. In Active Earth (6th grade), a four-session engineering challenge (sessions 4.2-4.5) takes students through the full engineering design process: designing, building, testing, and communicating an earthquake-resistant structure in response to the unit's guiding question, 'How do we build future-ready cities?' In Waves (8th grade, 8.PS4.1 and 8.PS4.3), the unit opens with students working in groups to communicate across the classroom using only a flashlight, fiber-optic cable, mirror, and Morse code sheets, with no sound and no line of sight. This shared hands-on experience anchors the Driving Questions Board and the unit's iterative model-building throughout. **Projects** Stile units regularly include research projects and extended performance tasks that require students to apply their unit learning to a new question, problem, or context. These projects have multiple pathways to success and are designed to develop students' ability to gather, evaluate, and communicate scientific information independently. As the Oklahoma Teacher Guide explains, through research projects students explore information about a particular topic or question, then use knowledge gained across the unit to apply their understanding to a novel task. • In 'What in the whirlwind?' (Earth Systems, 6th grade, 6.ESS3.2), students carry out a research project to

		investigate how large tropical storms and tornadoes form, using real Oklahoma tornado data and topographic maps to explain why the state's geography makes severe weather both frequent and difficult to predict. • In Food Chains and Food Webs (7th grade), students research an invasive species, analyze case studies examining how it affects populations and species interactions, and produce a written case study connecting their findings to broader ecological principles. • In The Importance of Biodiversity (7th grade, 7.LS2.4), the unit's culminating project asks students to apply the engineering design process to develop, design, and communicate a solution to the decline in bee species diversity, working through the full design cycle from problem definition to showcasing their design. • In The Survival of Species (8th grade), students undertake a research project on reproductive strategies, developing their ability to read, synthesize, and summarize scientific information while connecting life science content to real-world conservation contexts. **Discussion and collaborative learning** Scientific discourse is woven into every unit. Each session includes structured opportunities for whole-class discussion, peer collaboration, and student-generated questioning. The Driving Questions Board at the start of each unit invites students to record and organize their own questions, which are revisited as learning progresses. Discussion Opportunities are embedded in sessions throughout, with Teacher Tips suggesting specific prompts and routines. Live Polls and Live Brainstorms give every student a voice in real-time, and teachers can display anonymized responses using 'Show Responses' in Teach Mode to spark class-wide discussion without putting individual students on the spot. Socratic seminars appear as dedicated lesson types within units. In Ecosystems (7th grade), students research and debate a ban on single-use plastics. In Energy Conservation (7th grade), students engage in a Socratic seminar exploring the costs and benefits of hydroelectricity as a renewable energy source. Research projects scaffold collaborative inquiry. In Food Chains and Food Webs (7th grade), students research an invasive species and produce a case study, combining literacy skills with ecological content. **Engagement strategies** Stile has 22 evidence-based engagement strategies built directly into the platform that teachers can add to any session in Prepare Mode. Each strategy includes a summary, guidance on when to use it, and step-by-step instructions visible in Teach Mode. Strategies such as Snowballing (individual response, then pair, then group), Turn and Talk, Whiteboard Wipeout, round robin, and value line give teachers ready-made tools to shift between whole-class, small-group, and individual modes without additional preparation. These strategies are designed to break up screen time, support peer learning, and create consistent classroom routines that build student confidence over time. Differentiation support, including accessible formats, ELL tools, and data-driven small-group instruction, is addressed in more detail in criterion 2.

Criterion 1.1 Summary	Subtotal	Rating Levels	Rating
	_ / 14	**Exemplifies Quality: 11-14** **Approaching Quality: 8-10** **Not Represent Quality: 0-7**	

Criterion 1.2 Coherence	Materials reflect the three-dimensional structure of the Oklahoma Academic Standards for Science (OAS-S), supporting coherence across lessons, units, and grade levels by connecting Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), and Crosscutting Concepts (CCCs) in ways appropriate to student development.	
Indicators	**Guiding/Key Questions**	**Stile Evidence**
***1f. Materials provide a clear scope and sequence that can be completed within a typical course time frame (e.g., semester) and support coherent pacing.**	Is the timing for content and skills explicitly identified and reasonable for the course?	**Scope and sequence** The Oklahoma Teacher Guide opens with visual scope and sequence diagrams for 6th, 7th, and 8th grade, showing every unit, its guiding question, its Oklahoma Academic Standards, and its placement across the school year. Each grade includes seven to nine units organized across two semesters, with each unit designed to run at four sessions per week at 45 minutes per session. Every unit is tested and edited to verify it can be delivered within the recommended time frame. Where a session has flexibility, the Teaching Plan flags it as optional or suggests a shorter alternative, so teachers are never left guessing whether the content fits the clock. The ordering within each grade is deliberate: units are sequenced so that prior learning provides a foundation for what follows, and the Teacher Guide's three-dimensional progression sections (pp. 50–51, 88–89, 126–127) make these conceptual connections explicit. • 6th grade: Introduction to Science, Cells, Body Systems, Active Earth, Earth Systems, States of Matter, Energy, and Heat. • 7th grade: Food Chains and Food Webs, The Importance of Biodiversity, Ecosystems, Energy Conservation, Physical and Chemical Change, Resources, and Climate Change. • 8th grade: Our Place in Space, Newton's Laws of Motion, Waves, Non-contact Forces and Electricity, Plants, The Survival of Species, Genetics, Change Over Time, and an End-of-Grade Test preparation unit for the Oklahoma School Test Program (OSTP). The scope and sequence is a starting point, not a constraint. Stile's curriculum team works directly with districts to customize the scope and sequence for local needs, such as reordering units to align with district pacing calendars or accommodating school events and testing windows. This service is available to Oklahoma districts as part of Stile's partnership support.

Teaching Plans

Every unit is supported by a detailed Teaching Plan that translates the scope and sequence into practical, week-by-week classroom guidance. Teaching Plans are organized by week and session and provide the following for each lesson: the lesson name and type (classroom lesson, open-ended investigation, lab activity, engineering challenge, Socratic seminar, etc.); the session duration; a summary of the learning experience broken into icebreaker, core, and close; the lesson purpose and learning outcomes; Oklahoma Academic Standards alignment at the lesson level; preparation notes including materials required; Stile X workbook references; and a Lesson Adjustments column for optional extensions or modifications. For example:

- The Importance of Biodiversity Teaching Plan (7th grade) spans four weeks at four sessions per week, with each session mapped to the week. Week 1 introduces the unit phenomenon and builds conceptual foundations; Weeks 2 and 3 move through investigation and sense-making sessions; Week 3 transitions into the engineering challenge, beginning with 'Defining the problem' (session 3.1) and 'Research and brainstorming' (session 3.2); and Week 4 concludes with students building, testing, and presenting their bee-saving solution.
- The Waves Teaching Plan (8th grade) spans five weeks, with the lesson-by-lesson progression showing how SEP Developing and Using Models develops across the unit -- from an initial group model in week 1 through progressively refined models in weeks 2, 3, and 4, to a final complete model and unit resolution in week 5.
- The Newton's Laws of Motion Teaching Plan (8th grade) runs four weeks, with preparation notes flagging which sessions require materials (such as the water rocket build) well ahead of time so teachers can plan accordingly.

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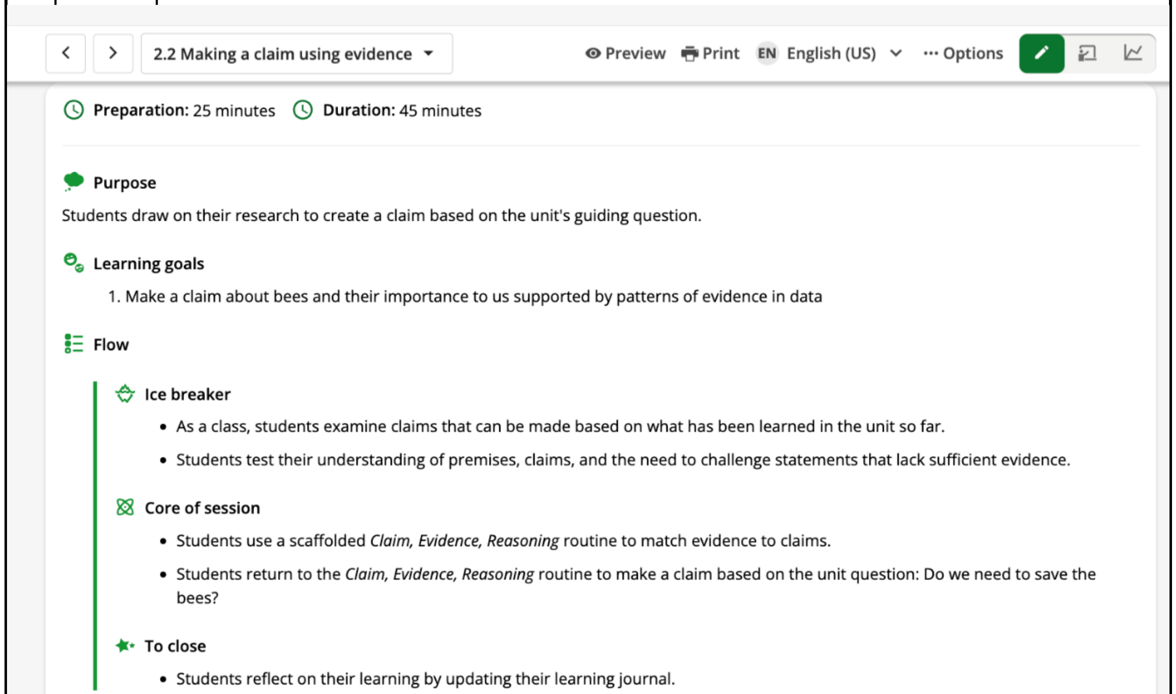
Teaching Plans are editable, so teachers can adjust the plan to suit their context without altering the underlying sessions.

Session-level timing
Within individual sessions, timing is explicit at the activity level. The teacher-facing session plan shows the total session duration (typically 45 minutes) and breaks this down into timed sections: icebreaker, core of session, and close, each with a minute-by-minute allocation. For example, in 'Making a claim using evidence' (The Importance of Biodiversity), the session plan shows 15 minutes for 'What makes up a claim?', 15 minutes for 'Challenging claims', and 10 minutes for the Key Question, with a 5-minute close for the learning journal. This granular timing guidance helps teachers manage pacing within a session without over-planning, and the Preparation and Duration indicators at the top of each session plan give teachers advance notice of setup time required.


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<td>1g. Materials connect new learning to related topics, linking to prior knowledge and experiences.</td>
<td>Do materials support meaningful connections between new and prior learning?</td>
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Stile is designed to make connections between new and prior learning visible and explicit at every scale, from individual session openings through to the three-dimensional progression across the full 6-8 band.
Developmental progression across and within grade levels
The Oklahoma Teacher Guide's three-dimensional progression sections (6th grade pp. 50-51, 7th grade pp. 88-89, 8th grade pp. 126-127) explicitly narrate how students' understanding of DCIs, SEPs, and CCCs builds across the year. Within each grade, units are deliberately sequenced so that prior learning provides a conceptual foundation for what follows. In 6th grade, for example, the life science knowledge from Cells lays the groundwork for Body Systems, which in turn develops the understanding of structures and functions that students later apply in Earth Systems and Active Earth. The Teacher Guide makes these connections explicit
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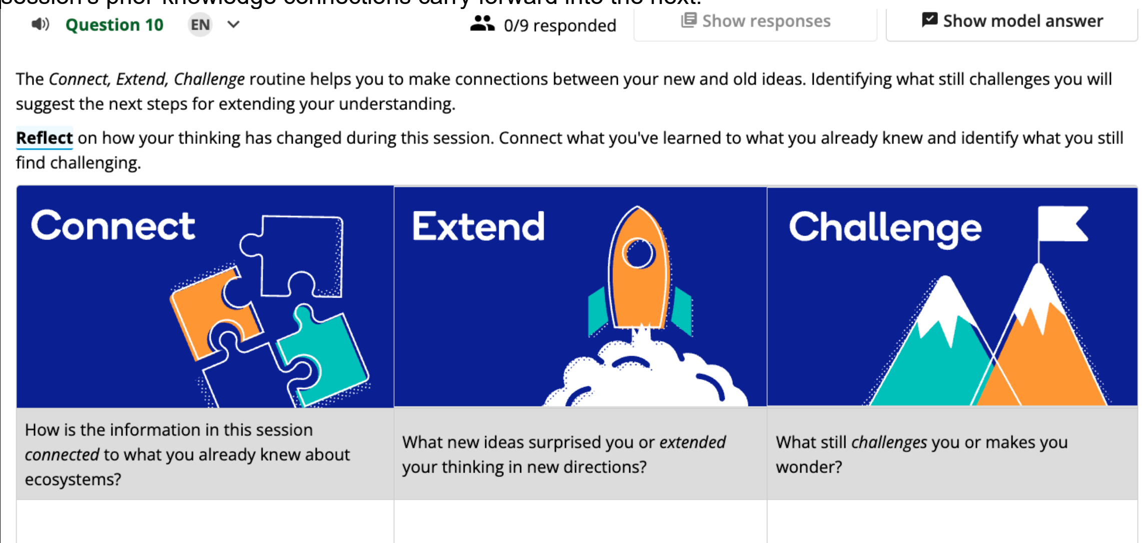
		for teachers, identifying where each unit draws on and extends prior learning rather than treating topics in isolation. Across the 6-8 band, the same SEPs and CCCs appear in progressively more demanding contexts, as documented in responses 1a and 1b above. **Unit pre-tests: identifying and activating prior knowledge** Every Stile unit begins with a diagnostic pre-test, sometimes labeled 'Pre-test', 'What do you already know?', or 'Introduction'. These sessions serve two purposes: they reveal each student's baseline understanding so teachers can identify knowledge gaps before instruction begins, and they actively ignite the knowledge students bring from prior grade levels. Pre-tests are three-dimensional, assessing prior DCI, SEP, and CCC knowledge, and Teacher Tips within the pre-test highlight specific questions tied to specific elements so teachers know exactly what each question is probing. • The Our Place in Space pre-test (8th grade) opens with a whole-class brainstorm of objects in the Solar System before moving to diagnostic activities on day and night and the Earth-Moon-Sun relationship. The Teaching Plan explicitly notes the assumed prior knowledge for the unit and offers optional revision sessions on day and night if the pre-test reveals gaps. • The Newton's Laws of Motion pre-test (8th grade) includes a group crossword on forces as an icebreaker, then moves to diagnostic activities assessing whether students understand what forces are and what they do, explicitly bridging from prior middle school learning. • The Waves pre-test (8th grade) assesses prior knowledge of wave properties, energy transfer, and electromagnetic radiation from Grades 3-5, with Teacher Tips flagging the nine most common misconceptions the pre-test is designed to surface. Where the pre-test reveals unfinished learning, teachers can use Analyze Mode to identify specific students or groups requiring support, and can assign targeted supplementary material from the Stile Library. This is covered in more detail in criterion 2. **Session-level connections to prior learning** Within individual sessions, prior knowledge is activated through deliberate opening routines before new content is introduced. Most sessions begin with an icebreaker, which consistently serves as a prior knowledge ignition tool. These take varied forms: Live Brainstorms and Live Polls ask all students to contribute ideas simultaneously, surfacing diverse prior knowledge in a low-stakes environment before the class discussion begins; See-Think-Wonder routines invite students to connect a new stimulus to what they already know; Predict-Observe-Explain routines ask students to apply prior understanding before encountering new evidence; and Think-Pair-Share activities give students time to articulate and test their existing ideas with a partner. • In Physical and Chemical Change (7th grade), the Changing Matter session begins: 'Brainstorm some examples of substances changing in your everyday life.' Students draw on household experience before any new content is introduced. • In Newton's Laws of Motion (8th grade), the opening session asks students to brainstorm what they know about motion and forces, with the teacher-facing session plan noting the specific prior knowledge assumed: that students understand what forces are, what they do, and how to describe them. • In Active Earth (6th grade), a Live Poll asks 'Have you ever experienced an earthquake?' before connecting student experience to the unit's central phenomenon. **Driving Questions Boards** At the start of every unit, the Driving Questions Board gives students a structured opportunity to articulate what they already know, what they wonder, and what they want to find out. Questions are organized as a class, revisited at the end of each session through thinking routines, and updated as understanding develops.

		This means prior knowledge is not just activated at the start of the unit; it is continuously connected to new learning as the unit progresses. The learning journal at the end of each session asks students to reflect on whether their questions have been answered and what new questions have emerged, creating an ongoing record of how their understanding is developing. **Thinking routines and metacognitive reflection** Over 300 Stile sessions conclude with a thinking routine that explicitly links new learning to prior knowledge. Routines such as 'I used to think, but now I think' ask students to name what has changed in their understanding, making the connection between prior and new knowledge the explicit focus of the close of the session. These routines also generate new questions for the Driving Questions Board, ensuring each session's prior-knowledge connections carry forward into the next. 
1h. Content is appropriate for the grade level and builds sequentially on students' prior knowledge to develop understanding of science concepts.	Is the content grade-appropriate and structured to build understanding?	Stile's Oklahoma curriculum is carefully and explicitly aligned to the Oklahoma Academic Standards for Science. Every unit in the Teacher Guide maps directly to the relevant Oklahoma standards, with DCI, SEP, and CCC elements identified at the unit and session level. This alignment work is not a retrofit -- Stile has built a dedicated Oklahoma curriculum in close consultation with the standards, just as it has done for Idaho, Missouri, Mississippi, North Carolina, Oregon, and other states. While each state's curriculum reflects unique standards and local contexts, the instructional design and content quality draw on more than a decade of middle school science expertise across thousands of classrooms in the United States and Australia. Stile works exclusively in the middle school space. That singular focus means every content decision, every learning progression, and every pedagogical design choice is made with the cognitive and developmental stage of middle schoolers in mind. The result is a curriculum that is neither too abstract nor too elementary: phenomena are chosen because they are genuinely puzzling to 11-14 year olds, question scaffolding is designed for the depth-of-knowledge range appropriate to the grade band, and language is calibrated to build scientific literacy without overwhelming students. Oregon's independent HQIM reviewers described Stile as "exemplary in building concepts across grade-level and grade-bands" and noted that "learning goals are strong and written in grade-appropriate, student-friendly language." **Grade-appropriate content and Oklahoma Standards alignment** Each Stile unit for Oklahoma is precisely scoped to its grade level's standards. The Oklahoma Teacher

		Guide's standard-level alignment sections (6th grade pp. 52–77, 7th grade pp. 90-115, 8th grade pp. 128-155) map every session to its Oklahoma Academic Standards with a description of how the standard is addressed and a named example lesson. Content is scientifically accurate and current, with Stile's guarantee that no dataset is more than five years old. Phenomena are selected for their grade-level appropriateness: 6th graders encounter cell models, earthquake data, and the particle model through accessible, concrete contexts; 7th graders engage with ecosystem dynamics, chemical reactions, and resource management at a greater level of abstraction; 8th graders work with Newton's Laws, wave models, and genetic inheritance at the level of sophistication the Oklahoma standards demand. **Sequential conceptual development across the 6-8 band** The Oklahoma Teacher Guide's 'Building conceptual in-depth understanding' section traces how students progress through each major DCI strand across the grade band, making the intended learning trajectory explicit for teachers. • In Physical Science, 6th grade students build foundational understanding of energy transfer and the particle model through the Energy and Heat units. In 7th grade they extend this into chemical reactions and particle-level changes in States of Matter and Physical and Chemical Change. In 8th grade they apply this understanding to forces, motion, and waves in Newton's Laws of Motion, Waves, and Non-contact Forces and Electricity. • In Life Science, 6th grade students explore cells, body systems, and food chains, building an understanding of how organisms are structured and how they interact. In 7th grade they apply this to ecosystem dynamics, biodiversity, and biological changes over time at the population level. In 8th grade they go deeper into genetics, Change Over Time, and the survival strategies of species. • In Earth and Space Science, 6th grade students develop models of Earth's systems and the water cycle in Earth Systems and Active Earth. In 7th grade they apply this to the cycling of matter and energy through ecosystems, and to the causes and consequences of changes in climate over time. In 8th grade they connect to Our Place in Space and the long-term geological processes that shape Earth's history. **Sequential development within grade levels** Within each grade, the scope and sequence is deliberately ordered so that prior learning provides conceptual scaffolding for what follows. In 6th grade, the life science knowledge from Cells directly underpins Body Systems; Earth Systems builds the conceptual foundation students need for Active Earth; and Energy provides the particle model knowledge that makes Heat accessible. The Teacher Guide's three-dimensional progression sections (pp. 50-51, 86-87, 124-125) narrate these connections explicitly, so teachers understand not just what to teach but why the sequence matters. **Sequential development within units and sessions** Within each unit, Teaching Plans (example here) include a lesson-by-lesson learning progression showing how DCI, SEP, and CCC elements are developed, practiced, and used in a three-dimensional performance task as the unit progresses. Within each session, questions are ordered to build incrementally: early questions establish vocabulary and foundational understanding; mid-session activities develop SEP and CCC skills; and the Key Question requires integrated, grade-level-appropriate 3D demonstration. Challenge Questions exceed the learning goal for students ready to go further. This consistent structure means students are never asked to demonstrate mastery before the scaffolding to reach it is in place.

***1i. Materials engage students with phenomena/problems in multiple ways (including related phenomena), maintaining continuity throughout lessons and grade levels.**	Do the materials engage students with the same phenomena or problems, and with related phenomena, in multiple ways, maintaining continuity across lessons and grade levels?	Scientific phenomena and engineering problems are not decorative hooks in Stile. They are the structural backbone of every unit, every lesson, and every question. Each unit is built around a single anchoring phenomenon or engineering problem that students encounter at the start and return to repeatedly as their understanding deepens. Related phenomena are introduced within lessons to add complexity, and the same scientific ideas reappear in new contexts across units and grade levels, so students develop genuinely transferable understanding rather than isolated knowledge. **Anchoring phenomena and engineering problems** Every unit opens with a shared, firsthand encounter with the anchoring phenomenon or problem. This shared experience creates a common reference point the whole class can return to, and launches the Driving Questions Board where students articulate what they notice, wonder, and want to find out. The phenomenon or problem is chosen because it is genuinely puzzling at the grade level and cannot be fully explained without the unit's core DCI, SEP, and CCC elements. Examples of anchoring phenomena and engineering problems across Oklahoma's three grade levels: • 6th grade: The engineering problem of keeping a pizza hot during delivery anchors the Heat unit, driving students to investigate heat transfer mechanisms and apply their findings to design an insulated delivery solution. An interactive virtual reality video of the aftermath of an earthquake in Nepal anchors Active Earth, prompting the engineering problem of how to design future-ready cities that can withstand natural hazards. The puzzle of why liquid water is so rare in the solar system opens States of Matter, anchoring student inquiry into the particle model. • 7th grade: The mystery of disappearing bee populations anchors The Importance of Biodiversity, with the engineering problem of saving or replacing the bees driving the unit's second half. The phenomenon of plastic washing up in remote ocean locations launches Ecosystems. The question of whether we should rely on hydropower anchors Energy Conservation, centering students in a real energy trade-off debate. • 8th grade: Students open Waves by trying to communicate across the classroom using only a flashlight, fiber-optic cable, mirror, and Morse code sheets, with no sound and no line of sight. This hands-on challenge anchors the phenomenon of a long-distance video call. The phenomenon of antibiotic-resistant bacteria in a Harvard Medical School experiment anchors Change Over Time, with students predicting and observing what happens to *E. coli* exposed to increasing concentrations of antibiotics. In Non-contact Forces and Electricity, students confront the engineering problem of designing a sustainable transport solution that harnesses non-contact forces. **Phenomena build within units** The Teaching Plan's week-by-week lesson guide shows how the anchoring phenomenon is revisited, deepened, and extended through related phenomena as the unit progresses. New phenomena are not tangents. They are carefully chosen to develop a specific piece of understanding that students then apply back to the anchoring question. In Waves (8th grade, 8.PS4.1 and 8.PS4.3), the Teaching Plan shows how the video call phenomenon is unpacked progressively. Week 1 establishes the anchoring challenge and initial model. In week 2, students encounter the phenomenon of 'dancing salt' to understand how vibrations transfer sound energy, then observe a Rubens tube to make wave properties visible. Week 3 brings light phenomena: students observe reflection and refraction, explaining how a phone camera works, then apply wave properties of light to brightness and color in images. Week 4 moves to the electromagnetic spectrum and digital signals, with students investigating how information travels from phone to cell tower via satellite and fiber-optic pathways. In week 5, students complete their final iterated model of the long-distance video call and resolve the Driving Questions Board.

		In The Importance of Biodiversity (7th grade, 7.LS2.4), the Teaching Plan shows a similar progression. Week 1 introduces the bee decline phenomenon through a class discussion and a simulation showing how bees and wildflowers interact on a farm, and establishes the Driving Questions Board. Week 2 deepens the phenomenon through real data on food security and additional simulations testing how changes in bee species numbers affect biodiversity and crop production. Week 3 pivots to the engineering problem: students define the problem, research existing solutions, and brainstorm design ideas. Week 4 concludes with students building, testing, improving, and showcasing their solutions. **Related phenomena maintain continuity across units and grade levels** The same scientific phenomena and problems recur in new contexts across the curriculum, so students see that scientific ideas have explanatory power beyond the unit in which they first encountered them. The particle model introduced in States of Matter (6th grade) is applied directly to explaining heat transfer phenomena in Heat (6th grade). The understanding of ecosystems built in Food Chains and Food Webs (7th grade) provides direct conceptual grounding for the bee decline and pollinator loss phenomena in The Importance of Biodiversity (7th grade). The fossil record phenomena encountered in Active Earth (6th grade) recur in Change Over Time (8th grade), where students revisit anatomical and fossil evidence to explain biological change over time. The engineering design process used to build earthquake-resistant structures in Active Earth (6th grade) is the same process students apply to sustainable transport design in Non-contact Forces and Electricity (8th grade), making the engineering practice itself a recurring and deepening thread across the grade band.
1j. Instructional activities incorporate SEPs, DCIs, and CCCs.	Do activities integrate SEPs, DCIs, and CCCs to maintain coherent learning progressions?	Three-dimensional integration is not a feature reserved for Key Questions or summative tasks in Stile. It is the intended design of every instructional activity. Across the curriculum, DCIs, SEPs, and CCCs are woven together so that students use scientific practices and crosscutting lenses to make sense of disciplinary content, rather than encountering each dimension in isolation. **Integration within activities** Individual activities within sessions are designed so that the DCI, SEP, and CCC work together toward a single act of sense-making or problem-solving. Students do not first learn content, then separately practice a skill, then separately apply a concept. The practice and the concept are the vehicle through which the content is understood. • In 'Demonstrating conservation of matter' (Physical and Chemical Change, 7.PS1.5 and 7.PS1.6), the session opens with students using Think-Pair-Share to predict whether a glow stick's mass changes when cracked, activating prior thinking about chemical reactions. Students then conduct hands-on investigations weighing closed and open reaction systems, gathering evidence for DCI PS1.B (the total number of atoms is conserved; mass does not change). The SEP (Analyzing and Interpreting Data) is the means by which students develop their understanding of the DCI, as they measure, compare, and interpret mass data across system types. The CCC (Energy and Matter) provides the explanatory lens: students use conservation of matter to account for what they observe, and the Key Question asks them to justify mass changes in an open versus a closed system using evidence from their investigation. • In 'Electromagnets: How can we make an electromagnet?' (Non-contact Forces and Electricity, 8.PS2.3 and 8.PS2.5), the session opens with a See-Think-Wonder routine as students watch a video of electromagnets lifting scrap metal at a waste processing facility. This shared experience launches student questions about how electromagnet strength changes, which drives the inquiry design activity that follows. Students construct an electromagnet using copper wire, a nail, and a battery, then design and conduct their own investigation to change its strength by varying current, identifying independent and dependent variables and controls. The DCI (PS2.B: Types of Interactions) is developed through the SEP (Planning and Carrying Out Investigations) as students collect and analyze data, with the CCC (Cause and Effect) providing the framework for explaining

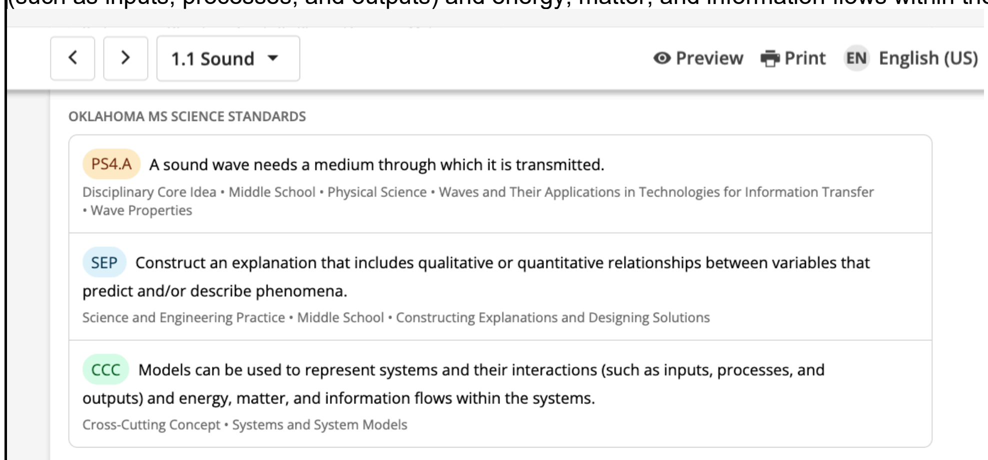
and predicting how changes in current affect magnetic force. The session closes with students connecting what they have learned back to their ongoing transport solution engineering challenge.

- In 'Designing a balloon car' (Newton's Laws of Motion, 8.PS2.2), students receive a design brief from Mayor Blimp of Velo City, asking them to engineer a balloon-powered car that can travel 3 meters using only the materials provided. Students design their prototype, build it, and collect data on its performance. The DCI (PS2.A: Forces and Motion) is developed as students consider how the sum of forces and mass determine their car's motion. The SEP (Planning and Carrying Out Investigations) is applied as students identify what they will measure and how, then test their car and record results. The CCC (Stability and Change) underpins students' evaluation: they consider what changes to forces or mass would change the car's performance, building toward the learning goal of investigating how an object's motion depends on the forces acting on it and its mass.

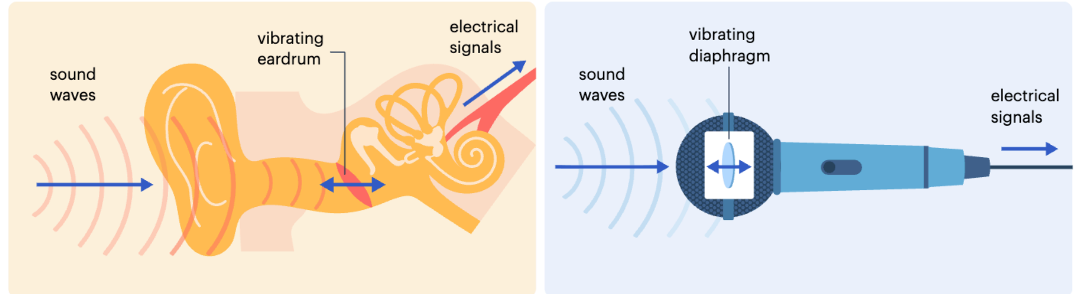
Integration at the session level

Across a full session, the sequence of activities progressively deepens the integration of all three dimensions. Early questions establish DCI vocabulary and single-dimension understanding. Mid-session activities develop the SEP and CCC in context. The Key Question integrates all three in a single constructed response. Teacher Tips in the teacher-facing session plan explicitly flag which 3D elements each question is developing or assessing, so teachers can provide targeted support at each stage.

In the Sound session (Waves), the session plan indicates that the lesson addresses the DCI PS4.A, the SEP Construct an explanation that includes qualitative or quantitative relationships between variables that predict and/or describe phenomena and the CCC Models can be used to represent systems and their interactions (such as inputs, processes, and outputs) and energy, matter, and information flows within the systems.



The questions leading up to Q7 (the Key Question) scaffold students to understand the facts (e.g. Q4), how to construct explanations (e.g. Q5) and modeling (Q6). If students struggle with any of these questions, teachers can address the misconception directly. Students bring all three elements together in the Key Question (image below).



The human ear and a microphone both detect sounds and convert them into electrical signals.

EN

Question 7 ★ Key Question Edit Delete ··· More

The simple diagram above shows some of the similarities between the human ear and a microphone.

Explain how the sound of Elina's voice travels from her mouth and is detected by her phone. Use the analogy with the human ear to support your explanation.

In many lessons, a Challenge Question extend students beyond the assessed 3D elements for the lesson.

Integration at the unit level

The Teaching Plan for each unit includes a learning progression grid showing where each DCI, SEP, and CCC element is developed, used, and formally assessed in a three-dimensional performance task across the unit's sessions. An open tick indicates a lesson where students develop the element; a filled tick indicates where they use it; and a performance task marker indicates a three-dimensional assessment checkpoint. This makes the cumulative integration across a unit visible to teachers, so they can see how the 3D elements are built toward rather than simply appearing at the end.

- In Heat (6th grade, 6.PS3.3 and 6.PS3.4), the Teaching Plan shows how DCI PS3.A and PS3.B are developed progressively across the unit's four weeks. In week 1, students develop an initial particle model to describe what heat is and how conduction transfers energy between objects, using SEP Developing and Using Models and CCC Cause and Effect. Week 2 extends this to convection and radiation, with students applying DCI PS4.B (reflection, absorption, and transmission of light) as they investigate how different materials interact with radiant energy, using CCC Structure and Function to explain why material properties matter for design. From session 2.4 onward, the unit pivots to the solar oven engineering challenge, where students define the problem, design a solution, build it, and test it over three sessions. Here, all prior DCI knowledge of conduction, convection, and radiation is brought to bear through SEP Constructing Explanations and Designing Solutions and CCC Energy and Matter, as students track how energy flows through their designed system. The performance task marker appears at the solar oven test session, where students evaluate their design against criteria and constraints.
- In The Importance of Biodiversity (7th grade, 7.LS2.4), the learning progression shows DCI LS2.C being developed through simulations and data analysis in weeks 1 and 2, then used in the

engineering challenge sessions of week 3. SEP Engaging in Argument from Evidence is developed in the 'Making a claim using evidence' session and used in the Key Question and the week 4 showcase. CCC Stability and Change runs as a thread from the opening bee decline phenomenon through to the final solution design, with students explicitly considering what disrupts and what maintains ecosystem stability.

- In Newton's Laws of Motion (8th grade, 8.PS2.1 and 8.PS2.2), the Teaching Plan shows DCI PS2.A being developed incrementally across four weeks. In week 1, students encounter Newton's First and Second Laws through classroom sessions and a flying car simulation, building conceptual understanding before any hands-on application. In week 2, they apply Newton's Second Law quantitatively, calculating forces using F = ma. In week 3, the engineering challenge begins: students design and build a balloon car (session 3.1), then improve it in session 3.2, evaluating how changing forces or mass impacts performance. SEP Planning and Carrying Out Investigations is developed in the design sessions and used in the performance task, with CCC Stability and Change underpinning students' analysis of what changes to their car's design change its motion. In week 4, students apply Newton's Third Law to vehicle collisions in the 'Science and Society: Speed limits in built-up areas' session, where the 3D performance task marker indicates the culminating use of all three dimensions together.

Integration across grade levels

The same CCCs recur across different disciplinary contexts in successive grade levels, so students develop a deepening understanding of each concept as a genuinely crosscutting lens. Stability and Change is introduced in the context of Earth's climate in Climate Change (7th grade), applied to force and motion systems in Newton's Laws of Motion (8th grade), and revisited through population and trait changes in Change Over Time (8th grade). Energy and Matter threads through Heat (6th grade), Physical and Chemical Change (7th grade), and Energy Conservation (8th grade). Cause and Effect underlies investigations in Body Systems (6th grade), Ecosystems (7th grade), and Non-contact Forces and Electricity (8th grade). In each case, students encounter the CCC as a thinking tool that works across scientific domains, not as a label attached to a standard.

	Subtotal	Rating Levels	Rating
Criterion 1.2 Summary	__/ 14	**Exemplifies Quality: 11-14** **Approaching Quality: 8-10** **Not Represent Quality: 0-7**	

Gateway 1 Points Available	Rating Levels	Gateway 1 Points Achieved	Gateway 1 Rating
28	**Exemplifies Quality: 22 - 28**	**____/ 28**	
	Approaching Quality: 15 - 21		
	Does Not Represent Quality: 0 -14		

Gateway 1 Comments

Gateway 2: Instructional Support

High-quality instructional materials support student learning, provide guidance and scaffolds for teachers to implement the curriculum effectively, and include assessments that inform instruction and help teachers understand students' skills and progress. Educators determine the Gateway rating by analyzing evidence from the instructional materials and scoring indicators tied to each criterion.

❑ **Materials must receive a score of Exemplifies Quality or Approaching Quality in Gateway 1 to be reviewed in Gateway 2.**

Gateway 2: Overview	Indicators	Available Points
Criterion 2.1: Student Learning The materials support each student's regular and active participation in grade-level or grade-band content by providing scaffolds, adaptations, and multiple ways for students to engage with science concepts and practices.	**2a – 2c**	**8**
Criterion 2.2: Teacher Supports The materials provide resources and guidance to help teachers plan, implement, and deepen their understanding of the curriculum effectively.	**2d – 2g**	**8**
Criterion 2.3: Assessment Materials provide opportunities to gather information on student learning, monitor progress, and evaluate understanding across a range of skills and knowledge levels.	**2h – 2k**	**8**
Total Points		**24**

Criterion 2.1 Student Learning	The materials support each student’s regular and active participation in grade-level or grade-band content by providing scaffolds, adaptations, and multiple ways for students to engage with science concepts and practices.

Indicators	**Guiding/Key Questions**	**Stile Evidence**
***2a. Materials provide appropriate scaffolds, interventions, and strategies to support a broad range of learners.**	Do materials support students from diverse linguistic backgrounds, those below grade level, and provide extensions for advanced learners?	Stile is built on Universal Design for Learning principles, with differentiation embedded in the platform, curriculum materials, and teacher tools rather than added as an afterthought. The Oklahoma Teacher Guide's 'Opportunities for Differentiation' section (pp. 30-31) and 'Accessibility and ELL Support' section (pp. 28-29) detail the full range of supports available. The table below summarizes support by learner group.

Learner group	Support	Description
English Language Learners	Full Spanish translation	All digital lessons and Stile X workbooks are fully translated into Spanish by native speakers. Teachers can configure which language each student sees per subject.
	On-hover glossary	Scientific terminology and cognitive verbs appear with a blue underline in lessons. Students hover to see an in-line definition, an associated image, and an audio pronunciation. A single click switches the word, definition, and audio to Spanish.
	Audio narration with word-by-word highlighting	Every lesson can be read aloud with word-by-word highlighting, allowing students to associate written and spoken language simultaneously. Available in English and Spanish.
	Google Translate integration	For students whose home language is not Spanish, Google Translate is integrated into the platform to support access in over 100 languages.
	Multimodal content	Lessons present information through images, graphics, videos with captions, and interactive simulations alongside written text, reducing reliance on English literacy to access scientific concepts.
	Stile X flashcards and vocabulary quiz	Stile X includes illustrated flashcards and short vocabulary summaries for every unit. The app learns which terms a student doesn't yet know and serves just-hard-enough questions using spaced repetition, building science vocabulary in both English and Spanish.
	Stile X: Español	The full suite of Stile X student workbooks is available in Spanish, providing the same graphic organizers, vocabulary activities, sentence stems, and practice tests in students' home language.
	Alternative expression modes	Teachers can replace written response questions with open response questions (audio upload, drawing, or video), removing language barriers to demonstrating understanding.
	Print or digital flexibility	Digital delivery makes the most of technical scaffolds including translation, audio narration, and the on-hover glossary. Teachers

				can also print any lesson for students who benefit from a reduced-distraction environment, with no loss of content.
			Writing exemplars	Model answers are available for every written question. Teachers can use these to build sentence frames and scaffolded starters for students who need support structuring a response.
		Students below grade level	In-lesson Teacher Tips and Lesson Adjustments	Every Stile session contains Teacher Tips visible only to the teacher, including specific differentiation suggestions, discussion prompts, and guidance on when to move between individual, pair, and group work. The Teaching Plan for every unit includes a dedicated Lesson Adjustments column for each session, flagging optional components, alternative approaches, and suggestions for modifying the lesson for different contexts. For example, the Newton's Laws of Motion Teaching Plan flags that the Newton's Third Law lab can be run as a round robin rotation for classes that need more structure. Lab Guides similarly include Improving Outcomes tips (advice on common pitfalls), Alternatives and Substitutions (material or setup swaps for different school contexts), and Extension notes for teachers who want to push students further within the same activity. These supports are embedded in the flow of teaching, so teachers do not need to find separate resources to adjust instruction in the moment.
			Lesson-level scaffolding	Sessions scaffold progressively from foundational questions toward the Key Question. Stile X booklets provide graphic organizers, sentence stems, and fill-in-the-blank activities students can work through alongside or instead of the digital lesson.
			Partner and small-group work	The Teacher Guide recommends structured partner work for students with lower literacy or ELL needs, so students can verbally process ideas before committing to written responses.
			Analyze Mode	After any session, Analyze Mode shows teachers red and green bars indicating correct and incorrect responses at the question level. Teachers can identify individual students, groups, or whole-class misconceptions and target support accordingly.
			Targeted session release	Teachers control which sessions are visible to which students. They can assign supplementary or modified lessons to specific students, hold back content to reteach, or release extension work to students who are ready.
			Stile Library interventions	The Stile Library includes supplementary units not tied to grade-level standards, including SEP skill-builder units for students with below-grade-level science practices and elementary-level units to fill foundational gaps.
			Resubmission workflow	Teachers can request resubmission of any lesson with written feedback. Students are notified and can revise work during or after class, creating multiple opportunities for mastery.
			Screen-reader compatibility and NIMAS files	The platform is fully compatible with screen-reader software, with alternative text on all images. NIMAS files are available for all units, enabling conversion to braille, audio, large print, or digital

				text.
			Co-teacher access	Support staff can be added as co-teachers in Stile, allowing them to monitor student progress, leave feedback, and create differentiated versions of lessons for students with specific needs.
			Full editability	Every lesson in Stile can be duplicated and modified. Teachers can simplify language, add sentence starters from model answers, swap question types, chunk content, or add additional scaffolding activities within Prepare Mode.
			Multimodal content	For students who struggle with extended reading, lessons communicate key ideas through images, graphics, videos with captions, and interactive simulations, providing multiple entry points to understanding content beyond written text.
			Alternative expression modes	For students for whom writing is a barrier, teachers can swap written response questions for open response options, allowing students to demonstrate understanding through audio recording, drawing, or video instead.
			Writing exemplars and sentence starters	Model answers are available for every written question. For students who struggle to get started, teachers can paste the opening of a model answer directly into a question as a sentence starter using Prepare Mode.
			On-hover glossary	The on-hover glossary supports students with lower literacy by providing immediate in-line definitions and associated images for unfamiliar scientific terms and cognitive verbs, reducing the barrier of encountering new vocabulary mid-task.
			Print or digital flexibility	Printing lessons can reduce on-screen distractions for students with attention needs, while the digital version retains accessibility tools including read-aloud, translation, and the glossary. Teachers choose the mode that best suits each student.
			Audio narration with word-by-word highlighting	Students who find reading challenging can have any lesson read aloud to them with word-by-word highlighting, allowing them to follow along and associate written and spoken words at their own pace.
			Stile X flashcards and vocabulary quiz	Stile X's flashcards and spaced repetition quiz support students who need additional vocabulary reinforcement outside of class, building familiarity with key terms before and after lessons.
		Advanced learners	Challenge Questions	Most sessions include Challenge Questions that go beyond the learning goal, requiring students to apply thinking at a depth of knowledge above standards-level expectations. Teachers can also add more using Prepare Mode.
			Extension lessons	Many units include complete optional extension lessons (for example, Micro:bit coding lessons in Waves) that can be assigned to individual students or groups ready for additional challenge.
			Open-ended investigations and engineering	Students who are ready for student-led work can engage with open-ended investigations, research projects, and engineering challenges, all of which offer multiple pathways to success and

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<tr><td></td><td>challenges</td><td>no single correct answer.</td></tr>
<tr><td></td><td>Going Further sections</td><td>Many sessions include a 'Going Further' section with optional extension activities that explore the session's concepts in a new or more complex context, giving advanced learners an additional challenge without leaving the class behind.</td></tr>
<tr><td></td><td>Full editability</td><td>Teachers can use Prepare Mode to increase the cognitive demand of any lesson, add higher-order questions, introduce more complex data sets, or remove scaffolding for students who are ready to work more independently.</td></tr>
<tr><td></td><td>Stile Library extensions</td><td>The Stile Library includes supplementary units beyond the grade-level scope. Teachers can assign these to advanced students as in-class tasks or independent study.</td></tr>
<tr><td></td><td>Socratic seminars and argumentation tasks</td><td>Socratic seminars in units like Energy Conservation (7th grade) and Ecosystems (7th grade) engage advanced learners in sophisticated scientific argumentation and ethical reasoning.</td></tr>
<tr><td></td><td>Test preparation and OSTP practice</td><td>Stile X includes a practice test for every unit with new review questions and detailed model answers, so students can self-assess against the learning goals before summative assessment. For 8th graders, Stile includes a dedicated End-of-Grade Test preparation unit aligned to the Oklahoma School Test Program (OSTP), giving students an authentic practice experience with strand-level feedback that teachers can act on immediately. The Stile X app's flashcard and quiz features support ongoing retrieval practice in the lead-up to testing, building both content knowledge and test confidence.</td></tr>
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The differentiation and accessibility supports described above are detailed in the Oklahoma Teacher Guide (pp. 28-31), and teachers receive dedicated professional learning in how to use Analyze Mode and Prepare Mode to differentiate effectively. Further detail on data-driven differentiation is provided in the assessment and implementation sections of this submission.
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<td>2b. Lessons present content in multiple ways, using alternatives to reading, writing, listening, and speaking (e.g., translations, pictures, graphic organizers, multimedia).</td>
<td>Do materials offer multiple representations to meet the needs of all learners?</td>
<td>
Stile materials are built around the principle that no single format works for every learner. Multiple representations are embedded by design across every Stile session, not added as an afterthought, so that students who struggle with reading, writing, listening, or speaking still have meaningful ways to access and demonstrate scientific understanding.
Digital or print: every session, every time. Every Stile session can be delivered digitally or as a printed paper version. The digital version enables teachers to take advantage of read-aloud tools, live student interaction, real-time data in Teach Mode, immediate feedback, and built-in accessibility features like audio narration and on-hover glossary support. The print version removes on-screen distractions, supports students who benefit from handwriting, and works anywhere without a device. Teachers can make the intended mode explicit for students by labeling each part of a session as "Laptops open," "No laptops," or "Notebooks," so students always know what mode they are working in and teachers can deliberately plan which format serves each activity best. Both versions carry the same images, graphic organizers, diagrams, and structured questions.
Within sessions: content presented in multiple ways simultaneously. Stile sessions are deliberately structured so that the same scientific idea is represented through several formats at once, giving students multiple entry points rather than a single text-heavy explanation.
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		• In the Energy Transfer and the Cycling of Matter session (7th Grade, Ecosystems unit), a video titled "Energy Transfer through a Food Chain" introduces the concept before students encounter text. This is followed immediately by a custom illustrated diagram of a marine food chain showing energy moving between seaweed, a butterflyfish, and a shark, labeled with arrows for stored energy, cellular respiration, heat, and waste. The session then moves to a multiple-choice question and a written Key Question, meaning students access the same concept through video, labeled picture, and interactive response in a single session. Reviewers can view this session at stileapp.com. • In the Convection session (6th Grade, Heat unit), students begin with a class video and a Predict-Observe-Explain graphic organizer before any extended text is introduced, structuring thinking visually before writing is required. • In the Wave Properties session (8th Grade, Waves unit), a single session integrates text, a custom wave diagram, a simulation, a video, drag-and-drop questions, animated GIFs, and cartoons, giving students with very different learning preferences multiple familiar formats for accessing how sounds are modeled using wave properties. • In the Modeling Phases of the Moon and Eclipses session (Our Place in Space unit), students use a physical hands-on model before returning to the digital session to connect their kinesthetic experience to scientific diagrams and explanations. **Alternatives to reading.** Audio narration reads any section of text aloud with word-by-word highlighting, so students can hear content rather than decode it independently. The on-hover glossary provides in-line audio pronunciation alongside a visual definition image for every key scientific term and cognitive verb, in English and Spanish. All embedded videos include captions. Screen-reader compatibility and image alt text ensure that students using assistive technology can access every element of every session. **Alternatives to writing.** Teachers can replace written response questions with open response questions in Prepare Mode, allowing students to submit a drawing, audio recording, or uploaded video instead. Drag-and-drop, labeling, and interactive canvas questions allow students to demonstrate understanding through manipulation rather than prose. Live Polls and Live Brainstorms let students contribute ideas collectively without individual written output. Stile is also compatible with speech-to-text software, so students who find typing or handwriting a barrier can dictate their responses directly into written response fields. **Alternatives to listening.** Video captions mean that content delivered through video is always readable as well as audible. Sessions embed the same content in text and image form alongside any audio or video component, so no single delivery mode is the only pathway to the information. **Alternatives to speaking.** Open response questions, digital drawing tools, audio upload, and video upload give students who find verbal participation a barrier the ability to demonstrate thinking in writing, visually, or through recorded media at their own pace, reviewed privately by the teacher. **Translation and language access.** All digital sessions are available in high-quality Spanish translation, created by native Spanish-speaking educators. The on-hover glossary can be toggled to Spanish for any underlined term. Google Translate integration supports 100+ additional languages for students whose home language is neither English nor Spanish.

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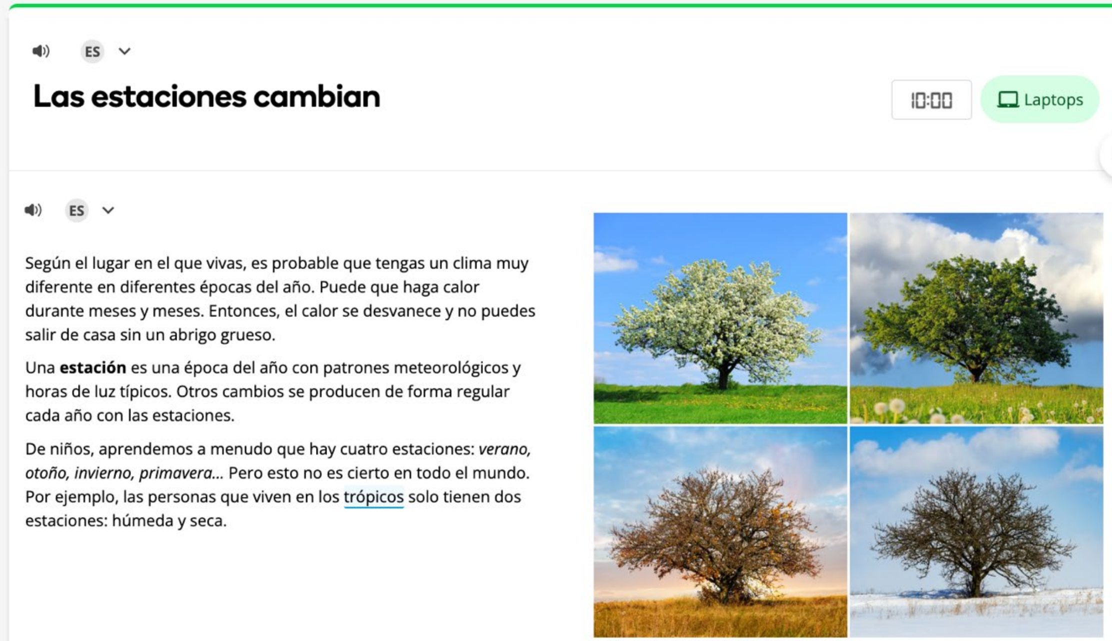

Stile X: a ready-made review resource with its own multiple representations. Rather than teachers having to create their own supplementary review materials, Stile X is a purpose-built printed student workbook that pairs directly with the digital sessions and is designed for study and consolidation, so teachers can direct students to it without additional prep. Stile X itself contains multiple representations of the same content:

Dual coding throughout: every key vocabulary term and concept is paired with an illustration, so students have a visual pathway alongside the written definition.
Frayer models and cloze activities scaffold vocabulary development without requiring extended writing.
Graphic organizers, mind maps, and flowcharts allow students to represent understanding spatially.
Annotation and summarization activities build comprehension skills through structured, non-writing-only formats.
Digital study resources including 60-second video summaries (example), smart flashcard quizzes (example), and an interactive glossary are available to support review at stileapp.com.
Stile X is also available in Spanish (Stile X: Español), so the same workbook-based representations are accessible to Spanish-speaking students in their home language.

Example Stile X booklets here:

Food Chains and Food Webs
Active Earth
Newton’s Laws of Motion

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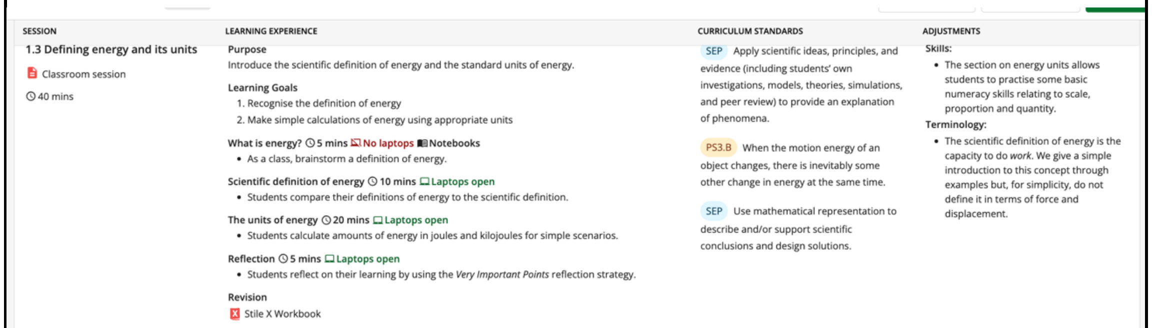
***2c. Materials engage students in regular, hands-on, or interactive experiences with the science content and practices.**	Do the materials provide opportunities for all students to actively participate and practice science skills?	Active, hands-on participation is a structural feature of Stile, not a supplement to classroom instruction. Every unit includes multiple forms of direct student engagement with science content and practices, ranging from physical investigations and engineering challenges to interactive digital simulations and structured scientific discourse. Students are consistently doing science, not just reading about it. **Four types of hands-on activities, every unit.** Stile's lab program distinguishes between four distinct activity types, each serving a different purpose in how students engage with science: • Lab/practical activities involve structured, guided investigations where students follow a defined method to collect and analyze data, such as modeling convection currents using hot water and an M&M candy (Heat unit) or dissecting a flower under a microscope (Plants unit). • Open-ended investigations give students more autonomy to design and conduct their own tests, such as the "How to keep pizzas hotter for longer" investigation in Heat, or the "Investigating factors that affect plant growth" investigation in Plants. • Hands-on activities are shorter, focused experiences tied to specific concepts, such as modeling global communication using physical templates (Waves unit) or modeling phases of the Moon with everyday objects (Our Place in Space unit). • Engineering challenges require students to move through the full design cycle: define, design, create, test, evaluate, improve, and share. Examples include designing a solar oven (Heat unit), building a transport solution using non-contact forces such as magnetic levitation (Non-contact Forces and Electricity unit), and constructing a heat shield prototype tested against a hair dryer (Our Place in Space unit). **Lab Kits and Lab Guides remove barriers to running labs.** All necessary physical materials for hands-on activities are available through Stile Lab Kits, organized into general equipment, reusable unit materials, and consumable unit materials, so teachers are not sourcing supplies independently. Each unit's Lab Guide provides step-by-step methods with sequential photographs of every stage, expected results, tips and tricks learned from classroom testing, alternatives and substitutions for materials, and after-class pack-up instructions. Demonstration videos for each lab activity are accessible at stileapp.com, giving teachers and students a visual model of the activity before they begin. • Body Systems (6th Grade) Lab Guide • Energy Conservation (7th Grade) Lab Guide • Non-Contact Forces (8th Grade) Lab Guide **Interactive simulations as hands-on digital experiences.** Stile includes over 200 custom-built simulations that allow students to actively manipulate variables and observe outcomes in ways that would otherwise be impossible in a classroom. These are genuine interactive experiences, not passive animations. • In the Newton's Laws of Motion unit, students use a simulation to investigate how changing the release angle of a flying disc affects the distance it travels, actively collecting data to construct an explanation. • In the Importance of Biodiversity unit, students manipulate variables in a simulation to explore how different bee species interact with the environment, then return to the same simulation later in the unit to model the impact of urban sprawl on bee populations and farms. • In the Energy unit, students use a PhET simulation to model energy transfers and transformations in a pedal-powered light bulb and a solar power system, directly applying their understanding of energy forms to a real-world engineering context. **Science and engineering practices embedded in every session.** SEPs are not isolated to lab sessions

in Stile; they are woven into the fabric of classroom sessions through structured routines and interactive tasks. Students use Claim-Evidence-Reasoning in the Making a Claim Using Evidence session (Importance of Biodiversity unit) to match evidence to claims and construct a written argument about whether we need to save the bees. Students plan and carry out investigations, analyze and interpret data from graphs and tables, develop and revise models, and engage in argument from evidence across every unit. Teaching plans explicitly list the SEPs addressed in each session so teachers can track practice development over time.



SESSION	LEARNING EXPERIENCE	CURRICULUM STANDARDS	ADJUSTMENTS
1.3 Defining energy and its units Classroom session 40 mins	**Purpose** Introduce the scientific definition of energy and the standard units of energy. **Learning Goals** 1. Recognise the definition of energy 2. Make simple calculations of energy using appropriate units **What is energy?** 5 mins No laptops Notebooks • As a class, brainstorm a definition of energy. **Scientific definition of energy** 10 mins Laptops open • Students compare their definitions of energy to the scientific definition. **The units of energy** 20 mins Laptops open • Students calculate amounts of energy in joules and kilojoules for simple scenarios. **Reflection** 5 mins Laptops open • Students reflect on their learning by using the *Very Important Points* reflection strategy. **Revision** Stile X Workbook	SEP Apply scientific ideas, principles, and evidence (including students' own investigations, models, theories, simulations, and peer review) to provide an explanation of phenomena. PS3.B When the motion energy of an object changes, there is inevitably some other change in energy at the same time. SEP Use mathematical representation to describe and/or support scientific conclusions and design solutions.	**Skills:** • The section on energy units allows students to practise some basic numeracy skills relating to scale, proportion and quantity. **Terminology:** • The scientific definition of energy is the capacity to do *work*. We give a simple introduction to this concept through examples but, for simplicity, do not define it in terms of force and displacement.

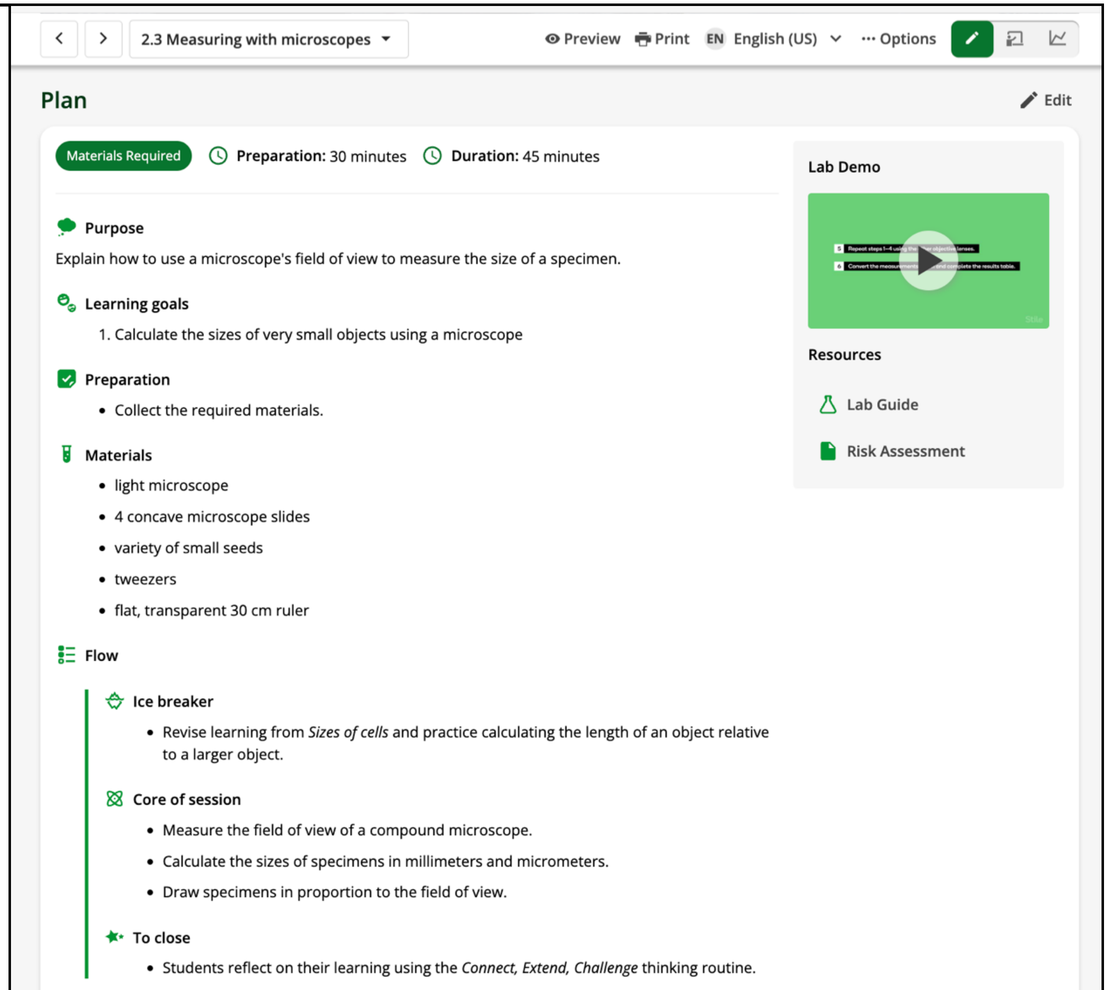
A dedicated SEP skill-builder unit for students who need extra support. For students who arrive with below-grade-level science and engineering practice skills, Stile's library includes a standalone SEP skill-builder unit. This unit gives students targeted, explicit practice with the practices themselves, independent of content, so they can engage confidently in the investigations and discussions of their grade-level units. Teachers can assign this unit to specific students without disrupting the rest of the class.

Socratic seminars and structured discourse as active practice. Science is a social practice, and Stile builds in formal structured discussion as a required activity in units where argumentation and evidence evaluation are central. Socratic seminars (example) ask students to actively engage with competing claims, defend positions with evidence, and respond to peers, giving every student a role in the intellectual work of the session rather than observing a teacher-led discussion.

Interactive digital question types keep all students actively participating. Beyond physical labs, digital sessions require active responses throughout: drag-and-drop questions, labeling tasks, live polls where student responses feed into class-wide data in real time, live brainstorms where ideas are contributed anonymously and displayed for discussion, and model-building tasks where students create and annotate diagrams. Teachers can use Teach Mode to see exactly which students are engaging with each question, identify who needs support, and pace the session to keep the whole class moving together.

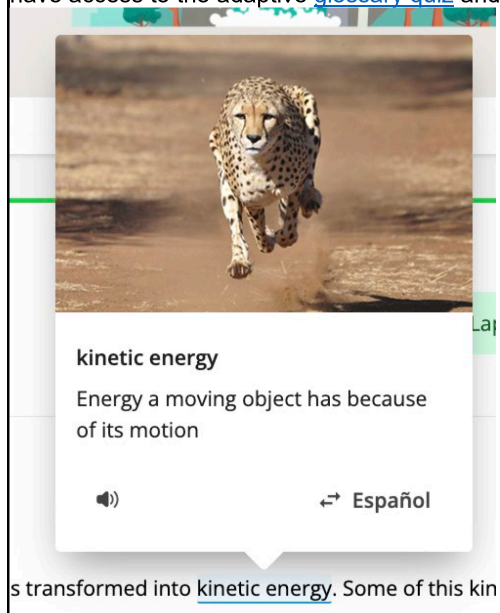
Criterion 2.1 Summary	Subtotal	Rating Levels	Rating
	__/ 8	**Exemplifies Quality:** 7-8 **Approaching Quality:** 5-6 **Not Represent Quality:** 0-4	

Criterion 2.2 Teacher Supports	The materials provide resources and guidance to help teachers plan, implement, and deepen their understanding of the curriculum effectively.	
Indicators	**Guiding/Key Questions**	**Stile Evidence**
2d. Materials include features such as glossaries, footnotes, recordings, and pictures that help teachers use the materials effectively, regardless of their prior content knowledge.	Do the materials include features that aid teachers (and students) in using them effectively?	Stile is designed so that teachers do not need to be content experts to teach confidently and effectively. A layered system of support materials is built into the curriculum at every level, from individual sessions through to year-long guides and an always-available online help center, ensuring teachers have what they need whether they are new to science teaching, new to Stile, or simply preparing for an unfamiliar unit. **Session plans: everything a teacher needs before the bell rings.** Every Stile session opens with a built-in Plan view that gives teachers a complete at-a-glance briefing before teaching begins. Session plans include the session purpose, numbered learning goals, preparation time and duration estimates, a full materials list with per-group quantities, step-by-step preparation instructions (including notes on printing templates, pre-treating materials, or setting up stations), a structured session flow broken into Icebreaker, Core of Session, and To Close phases, the glossary terms introduced in that session, curriculum standards addressed with a description of how students will meet each one, and an Adjustments section with explicit guidance on running mixed-device sessions or other variations. For lab sessions, the Plan view also displays an embedded Lab Demo video and direct links to the Lab Guide and Risk Assessment, all in one place. This means teachers can open a single view before class and find every piece of logistical and pedagogical information they need, without navigating multiple documents.

		 **In-session Teacher Tips: "footnote" guidance at the point of teaching.** Every Stile session is annotated with Teacher Tips that appear in Prepare Mode before the session and in the teacher-facing view during class. These are specific, context-sensitive notes written by the Stile curriculum team based on actual classroom testing. They cover common student misconceptions at the exact moment they are likely to arise, suggested discussion prompts, grouping recommendations, differentiation and extension suggestions, and safety notes for lab activities. Examples from across grade levels include: • In the Energy unit (6th grade), the pre-test Teacher Tips list nine common misconceptions the pre-test is designed to surface, giving teachers a clear heads-up about likely student confusion before the unit begins. • In the Importance of Biodiversity unit (7th grade), a Teacher Tip at the Making a Claim Using

		Evidence session alerts the teacher to clarify the difference between a premise and evidence for students who need additional support with the Claim-Evidence-Reasoning routine. • In the Waves unit (8th grade), a Teacher Tip during the Wave Properties session prompts teachers to ask students to identify non-scientists who use science regularly, connecting the concept to real-world careers and broadening who students see themselves becoming. **Teaching plans: a week-by-week road map for every unit.** Every Stile unit includes a comprehensive teaching plan available in-platform and as an editable Word document, so teachers can adapt it for their own planning systems. Teaching plans provide a week-by-week guide covering the unit's guiding question, the learning progression across sessions, explicit identification of the three dimensions in each session, study and homework suggestions, common misconceptions at the unit level, a summary of all lab activities and engineering challenges, and a Lesson Adjustments column with differentiation suggestions for students with additional needs, advanced learners, and English language learners, session by session. Examples: • Waves (8th Grade) Teaching Plan • The Importance of Biodiversity (7th Grade) Teaching Plan • Energy (6th Grade) Teaching Plan **Lab Guides: everything – including videos! – teachers need to run lab activities confidently**. Every unit has a dedicated Lab Guide covering all lab activities, hands-on activities, open-ended investigations, and engineering challenges in that unit. Lab Guides include a full materials list organized by activity, step-by-step illustrated methods with sequential photographs of each stage, before-class preparation instructions, tips and tricks drawn directly from Stile's team testing each lab themselves, alternatives and substitutions for materials, expected outcomes with example results, and after-class pack-up guidance. Demonstration videos (example) for every lab activity are accessible directly from the session Plan view and at stileapp.com, so teachers can watch the procedure modeled before running it with students. • Body Systems (6th Grade) Lab Guide • Energy Conservation (7th Grade) Lab Guide • Non-Contact Forces (8th Grade) Lab Guide **The Oklahoma Teacher Guide: a year-level reference for confident implementation**. The Oklahoma Teacher Guide is a comprehensive reference document written specifically for Oklahoma teachers using Stile. It covers the full scope and sequence for each grade level, alignment to Oklahoma Academic Standards for Science, an overview of Stile's pedagogical approach including the 5E Instructional Model, guidance on supporting English language learners and students with additional needs, suggested instructional routines, and strategies for using Stile's digital features effectively. The Teacher Guide is a resource teachers can return to throughout the year as their confidence and familiarity with Stile grows. **Vocabulary support: multiple layers of glossary access.** Every unit includes a standalone glossary (example) covering all key terms introduced in that unit, with each entry including a short definition, a longer definition in context, and an image. This gives teachers a complete reference for the unit's scientific vocabulary before teaching begins, so unfamiliar terms do not become a barrier to confident instruction. Within sessions, the on-hover glossary provides additional in-line support: every key scientific term and cognitive verb that appears underlined includes a hover definition with an

accompanying image and audio pronunciation in English and Spanish. Each session plan lists the glossary terms introduced in that specific session, so teachers can see at a glance which vocabulary will be new for students and plan for explicit instruction accordingly. In addition, students and teachers have access to the adaptive glossary quiz and flashcards.



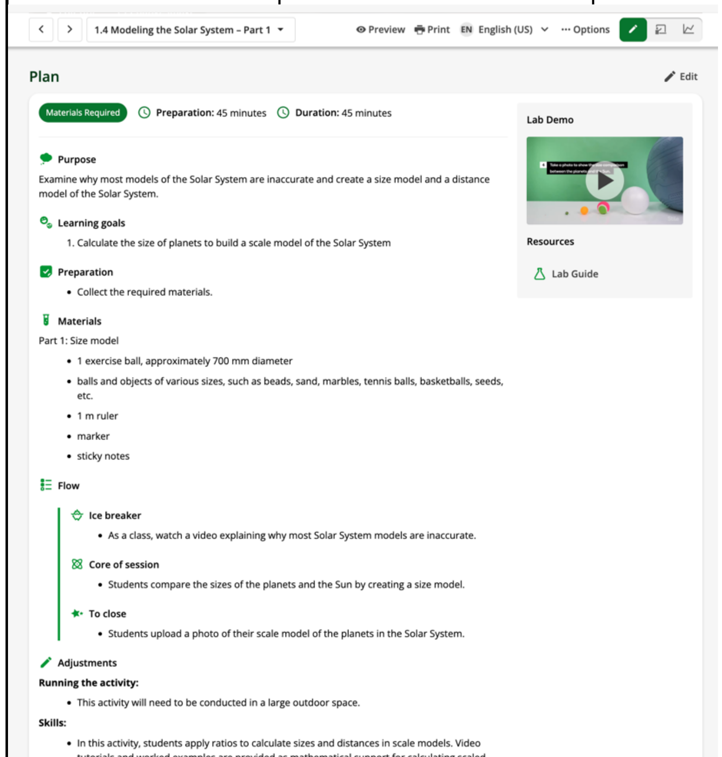
Student-facing supports that also help teachers. The on-hover glossary provides in-line definitions with images and audio pronunciation for every key scientific term and cognitive verb, in English and Spanish. Every session plan lists the glossary terms introduced in that session, so teachers know which vocabulary will be new for students before the session begins. Model answers are available for every written question in Prepare Mode, giving teachers a reference for what a proficient response looks like so they can provide accurate feedback without needing deep prior content knowledge in every topic. Teachers can edit model answers to create sentence starters or leveled responses tailored to their class.

The Stile PL Hub: free, on-demand training whenever teachers need it. The Stile Professional Learning Hub is accessible directly from within a teacher's Stile account and provides free, self-paced training modules teachers can work through at their own pace. Modules include video walkthroughs of platform features, pedagogical guidance, and badge-earning activities that build toward becoming a Stile Super Teacher. The PL Hub is especially valuable for teachers who join mid-year, for those who want to revisit a specific feature, or for any teacher who wants to deepen a particular aspect of their practice with Stile. It is available year-round at no additional cost.

The Stile Help Center: a searchable encyclopedia for any question. The Stile Help Center at help.stileapp.com is a comprehensive, searchable knowledge base covering every aspect of the platform. Articles are organized by topic and include step-by-step guidance with screenshots. Teachers and students can search for any question, from setting up a class to running Analyze Mode after a session, and find a clear answer without waiting for support. Where an article does not resolve

		the issue, teachers can contact Stile's help team directly by email or phone, with a response typically within the same day.
2e. Materials provide overview sections, annotations, and suggestions that assist teachers in presenting the student materials accurately.	Are there overview sections and annotations provided that contain narrative information to help teachers present the content?	Stile provides teachers with rich narrative and annotative support at every level of the curriculum, from a year-level overview down to an individual session question. Together these materials ensure teachers understand not just what to teach but why the content is sequenced the way it is, what students are expected to do with it, and how to present it accurately and effectively. **The Oklahoma Teacher Guide: a year-level narrative overview.** The Oklahoma Teacher Guide provides the highest-level orientation for teachers using Stile. It opens with a narrative explanation of Stile's pedagogical approach, including how the 5E Instructional Model structures units and sessions, how the three dimensions of science learning are integrated across the curriculum, and how evidence-based teaching strategies are embedded throughout. The guide includes a full scope and sequence for each grade level with a brief narrative description of every unit's anchoring phenomenon, guiding question, and real-world context, so teachers understand the purpose and story of each unit before they open it. A developmental progression section maps how disciplinary core ideas, science and engineering practices, and crosscutting concepts are built across the year, explicitly identifying the prior knowledge each unit relies on and explaining how it will be extended. For example, a 6th grade teacher can read how the life science knowledge built in Cells underpins deeper learning in Body Systems, Plants, and Earth Systems later in the year. An alignment section connects every standard to the specific sessions where it is addressed, with a description of exactly what students do to meet it. **Teaching plans: unit-level narrative that tells the story before teaching begins**. Every Stile unit includes a teaching plan that opens with a narrative unit overview explaining the anchoring phenomenon, the guiding question driving student inquiry, the big ideas students will work toward, and the highlights of the unit including notable activities, challenges, and investigations. This overview gives teachers enough narrative context to introduce the unit to students confidently and explain its real-world relevance, regardless of their prior content knowledge in that area. For the Waves unit, for example, the teaching plan opens with a narrative explanation of how students develop models of global telecommunication by investigating how a video call works, before outlining the big ideas and listing session highlights such as using simulations to investigate the properties of sound and light, explaining why a red gummy bear stops a green laser in its tracks, and programming pocket-sized computers to send Morse code messages. The Importance of Biodiversity teaching plan similarly opens with a narrative framing the mystery of declining bee populations and explaining how students progress from investigation through to engineering a solution. Teaching plans also include a 3D learning progression grid that maps exactly where each disciplinary core idea, science and engineering practice, and crosscutting concept is introduced, developed, and evaluated across the unit's sessions, so teachers can see the full shape of student learning at a glance. **Session plans: annotated at-a-glance briefings for accurate delivery.** Every session opens with a Plan view containing a written session purpose that explains the narrative role of that session within the unit, numbered learning goals stating precisely what students should know and be able to do, and a structured session flow broken into Icebreaker, Core of Session, and To Close phases with brief descriptions of what students are doing in each. The curriculum standards section of the session plan includes not just the standard code but a written description of what students do in this specific session

to make progress toward meeting it, so teachers understand the connection between activity and standard rather than simply a code reference. For lab sessions, the Plan view also includes an embedded demonstration video and direct links to the Lab Guide and Risk Assessment, all contextualized within the plan rather than treated as separate documents.

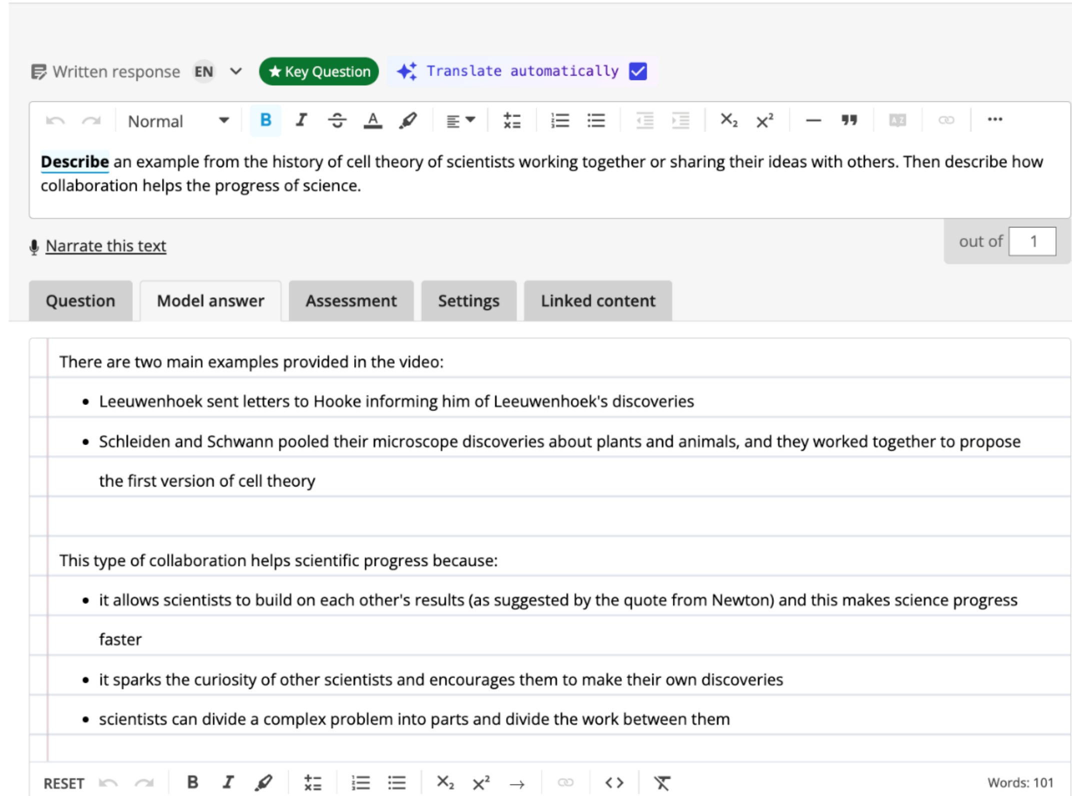


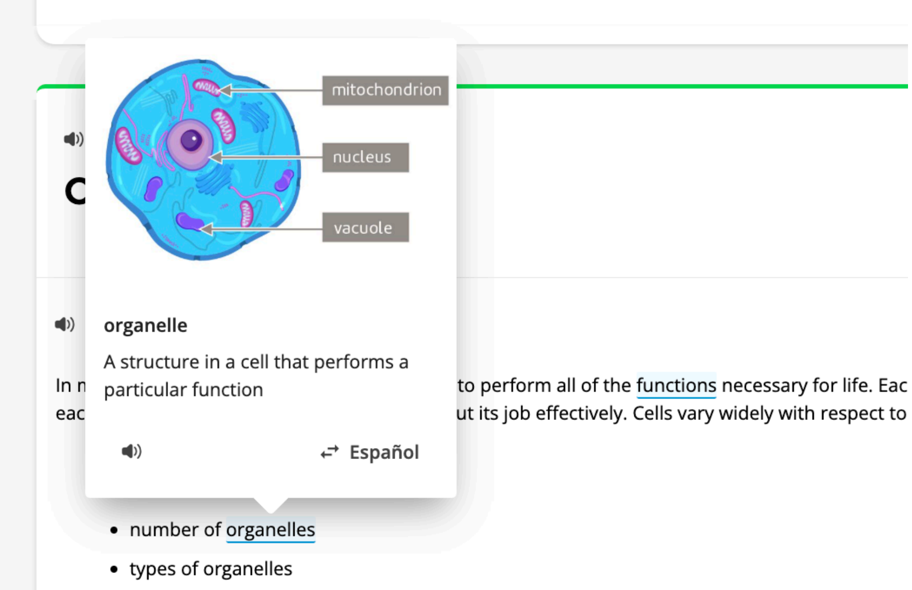
In-session Teacher Tips: narrative annotations at the point of instruction. Teacher Tips appear directly within sessions in Prepare Mode, positioned at the exact question or activity where the guidance is most relevant. They provide narrative explanations of why a particular activity is structured the way it is, what common student misconceptions are likely to arise and how to address them, how a question connects to the three dimensions of the standard, and suggestions for extending or scaffolding the content for different learners. These annotations are written by the Stile curriculum team based on direct classroom experience and testing, meaning they reflect practical knowledge about how students actually respond to the content rather than generic instructional advice. Examples from across grade levels include tips that name specific misconceptions with explanations of why students hold them, discussion questions that help teachers draw out student thinking, and explicit flags when a question is assessing three-dimensional proficiency at grade level.

Example teacher tips include:

- From The Solar System session in Our Place in Space (8th Grade): “Fast finishers and students in need of extension can answer the questions relevant to this session in the

		"Practice test" section of their Stile X booklet. This will allow them to apply their knowledge by answering test-style questions." • From the Sources of energy session in Ecosystems (7th Grade): "If cellular respiration is a new concept for your students, you may like to have a class discussion that clarifies how it is distinct from breathing. Breathing is the physical process of taking oxygen into the lungs and getting rid of carbon dioxide. Cellular respiration is a chemical reaction that occurs in body cells and releases energy from sugar molecules." • From the Introduction session in Cells (6th Grade): "The question below will be revisited later in the unit. This gives students the opportunity to reflect on their developing understanding of cell structure and function, and refine their biological drawing skills. It should be emphasized to students that this first attempt is just to find out what they already know. At this stage, they are not expected to be able to accurately draw or label a cell." **Model answers: narrative exemplars for every question.** Every written response question in Stile includes a model answer accessible in Prepare Mode. These are not answer keys; they are narrative exemplars written at the expected level of proficiency for the learning goal, giving teachers a concrete reference for what accurate and complete scientific reasoning looks like in student-facing language. Teachers who are less familiar with a content area can use model answers to develop their own understanding of the expected response before facilitating discussion. They can also be edited to create sentence starters, leveled responses, or scaffolded versions for students who need additional support.

		 **Two layers of vocabulary support: unit glossaries and the on-hover glossary**. Stile provides vocabulary support at two levels. Every unit includes a standalone glossary (example here) covering all key terms introduced in that unit, with each entry including a short definition, a longer definition in context, and an image, giving teachers a complete reference for the unit's scientific vocabulary before teaching begins. Within sessions, the on-hover glossary provides additional in-line support: every key scientific term and cognitive verb that appears underlined in a session includes a hover definition with an accompanying image and audio pronunciation in English and Spanish. Each session plan also lists the glossary terms introduced in that specific session, so teachers can anticipate which vocabulary will be new for students and plan for explicit instruction rather than encountering unfamiliar terms mid-session.

		
2f. Materials list all lessons in print or digital format, including estimated instructional times for each lesson, chapter, and unit, to support teacher planning and pacing.	Is there clear documentation that provides estimated instructional time for lessons, chapters, and units?	Stile provides clear, consistent documentation of estimated instructional time at every level of the curriculum, from the full school year down to individual activity segments within a session, so teachers can plan and pace with confidence. **The Teacher Guide scope and sequence: year-level time at a glance.** The Oklahoma Teacher Guide includes a visual scope and sequence for each grade level that maps all units across the school year, showing teachers how the full year fits together and approximately when each unit is taught. Each unit entry in the scope and sequence includes the total duration of the unit in weeks and the number of sessions per week, giving teachers an immediate picture of the time commitment before they begin planning. For example, the Waves unit is listed as 5 weeks at 4 sessions per week, and the Active Earth unit as 7 weeks at 4 sessions per week at 45 minutes per session. This year-level view allows department heads and individual teachers to plan around school calendar events, assessment windows, and district pacing requirements.

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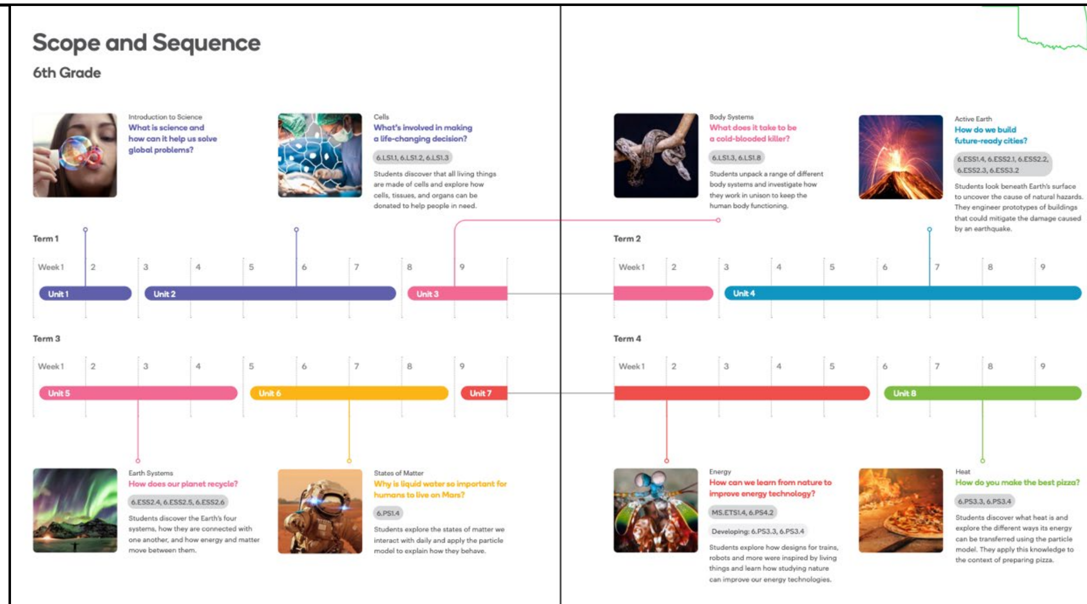

Teaching plans: unit and session-level time documentation. Every unit's teaching plan opens with a clear statement of the unit's total duration, number of sessions per week, and session length in minutes. Within the week-by-week table, every session is listed with its total time displayed alongside the session title, and the session's internal activities are each given their own time allocations in minutes. For example, in the Waves teaching plan, session 1.3 Investigating Resonance is listed as 45 minutes, with its internal segments broken down as 5 minutes for the Do Now, 10 minutes for What is Resonance, 10 minutes for Planning Your Investigation, 15 minutes for Conducting Your Investigation, and 5 minutes for the Conclusion. Check-ins and pre-tests also have their durations listed, such as the 5-minute check-in that appears in Week 2 of Waves. This level of granularity allows teachers to plan the session flow in advance and make informed decisions about where to slow down, where to compress, and which optional sessions to include given the time available.
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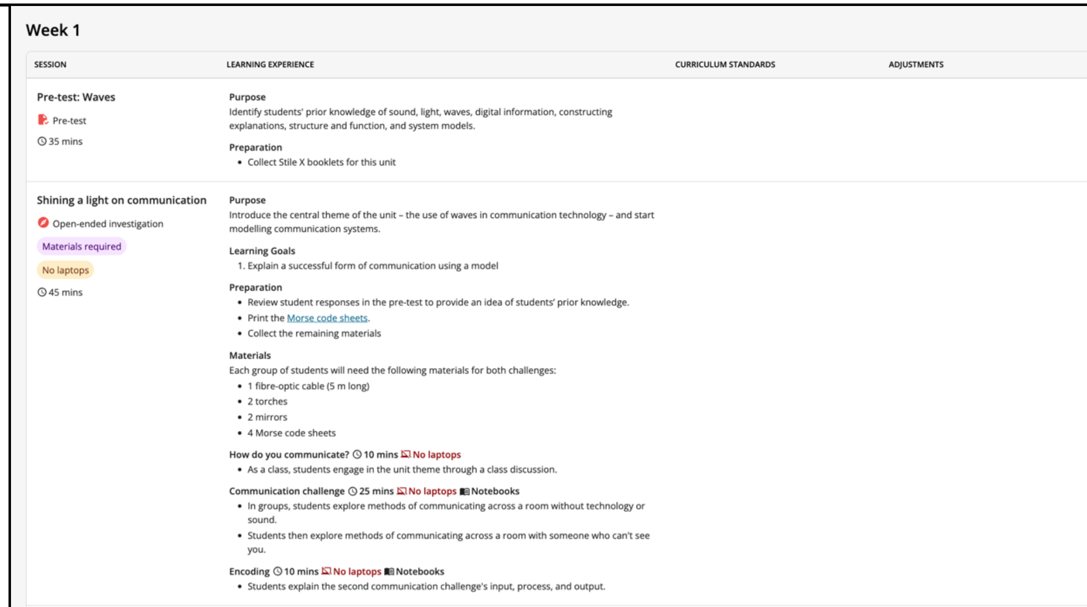

Session plans: preparation time and duration at the point of teaching. Every session's Plan view displays both a preparation time estimate and a total session duration at the top of the page, so teachers can see at a glance not only how long the session will take with students but how much time to set aside before class. For lab sessions, the preparation time estimate reflects the additional setup required for physical materials. This dual time display, visible in the same view as the session purpose, learning goals, and materials list, means all planning information is in one place.
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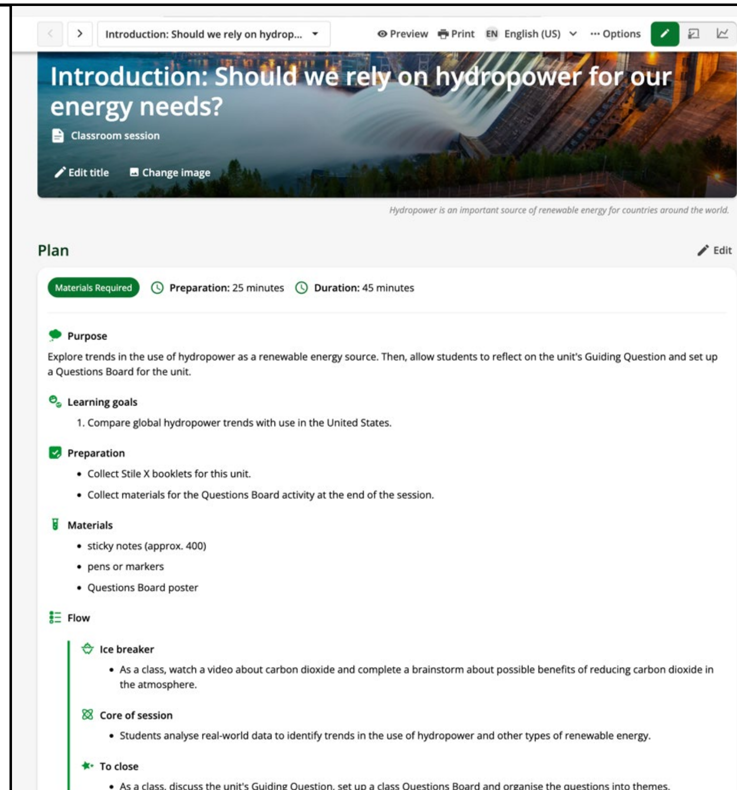

Optional and extension sessions are clearly labeled. Teaching plans flag optional sessions and extension sessions explicitly in the week-by-week schedule, so teachers can quickly identify which sessions are core and which can be added or removed depending on available instructional time. This allows pacing to flex without teachers needing to make judgment calls about content importance on their own.
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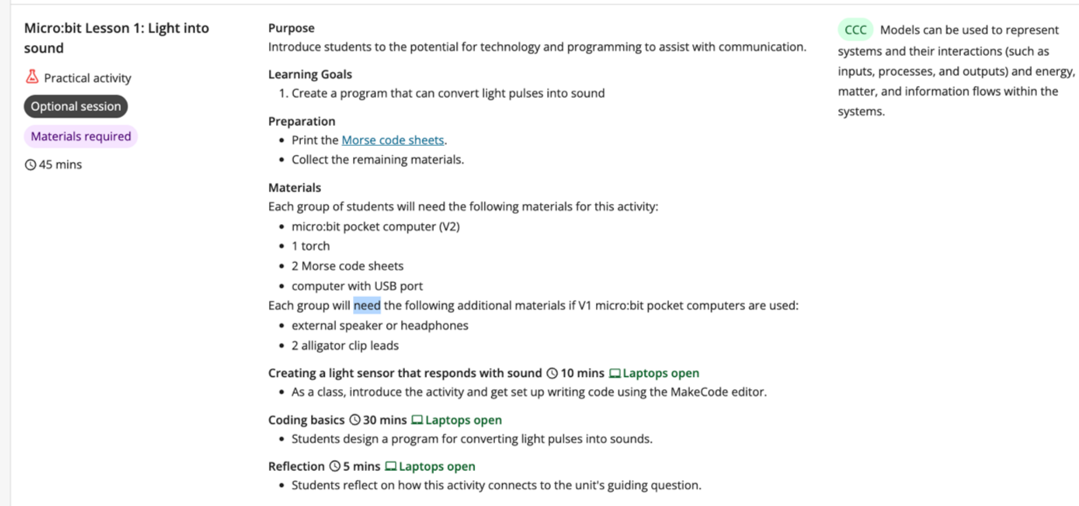
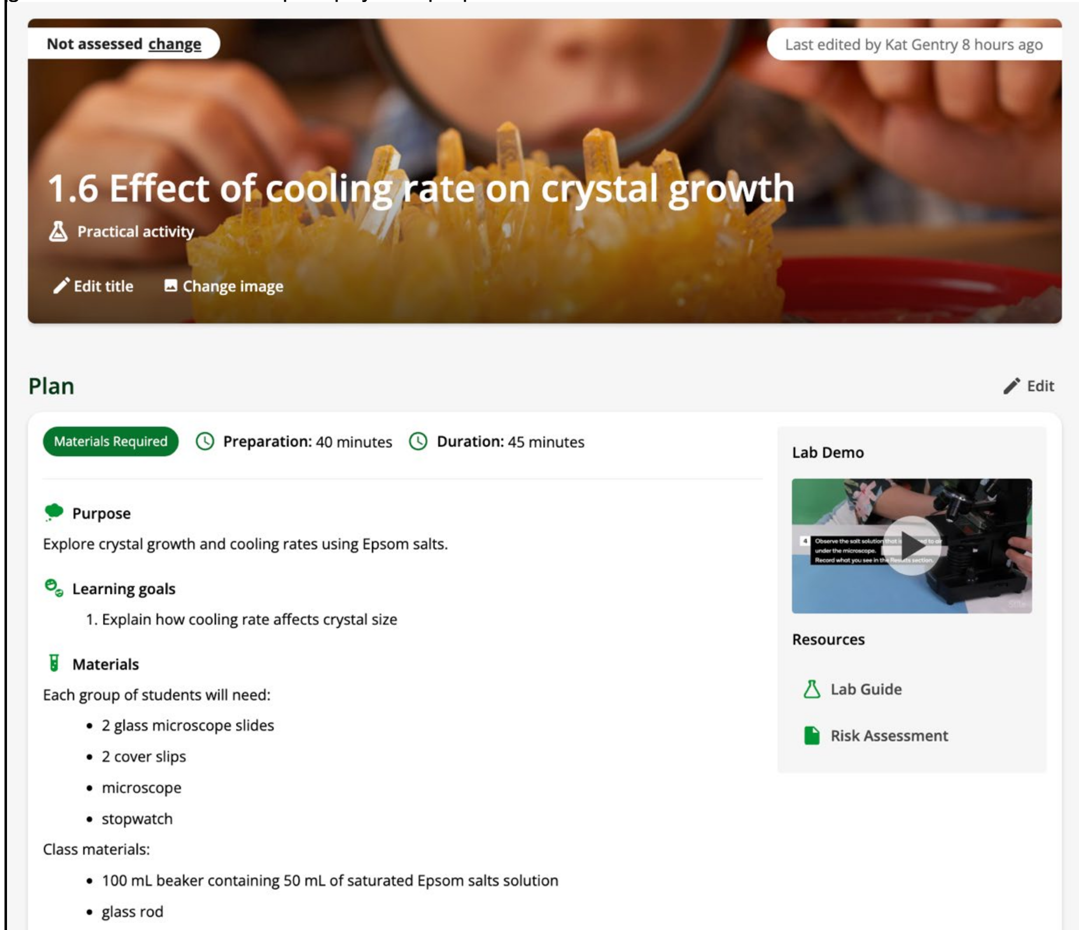
		 Micro:bit Lesson 1: Light into sound Practical activity Optional session Materials required 45 mins **Purpose** Introduce students to the potential for technology and programming to assist with communication. **Learning Goals** 1. Create a program that can convert light pulses into sound **Preparation** • Print the Morse code sheets. • Collect the remaining materials. **Materials** Each group of students will need the following materials for this activity: • micro:bit pocket computer (V2) • 1 torch • 2 Morse code sheets • computer with USB port Each group will need the following additional materials if V1 micro:bit pocket computers are used: • external speaker or headphones • 2 alligator clip leads **Creating a light sensor that responds with sound** 10 mins Laptops open • As a class, introduce the activity and get set up writing code using the MakeCode editor. **Coding basics** 30 mins Laptops open • Students design a program for converting light pulses into sounds. **Reflection** 5 mins Laptops open • Students reflect on how this activity connects to the unit's guiding question. CCC Models can be used to represent systems and their interactions (such as inputs, processes, and outputs) and energy, matter, and information flows within the systems.
2g. Materials provide a comprehensive list of items needed for investigations, activities, and lessons, including consumables, non-consumables, and kits.	Do materials provide a detailed list of all resources required for activities, such as kit items clearly labeled and easy to find when needed?	Stile provides comprehensive, clearly organized materials documentation at every level, from the full unit down to the individual lab activity, so teachers always know exactly what they need, when they need it, and where to find it. The underlying philosophy is that a lab should work the first time, every time, and the materials system is designed to make that possible. **Lab Guides: the definitive materials reference for every unit.** Every Stile unit has a dedicated Lab Guide, available free as a PDF within the teacher's Stile account. Each Lab Guide opens with a complete unit materials list covering every lab activity in the unit. Materials are organized into clearly labeled categories: Glassware, General Equipment, unit-specific Reusable Materials, unit-specific Consumable Materials, and BYO materials (everyday classroom supplies such as chairs, pencils, or rulers that are already available in most classrooms). Each item is listed with the quantity required per group and the specific lab activity it is used in, so teachers can cross-reference easily. For every individual lab activity within the guide, the materials list is repeated in full alongside the method, preparation notes, tips and tricks, alternatives and substitutions, and after-class pack-up instructions, so the teacher has every piece of information they need for that activity in one place without having to navigate between documents. • Example from Plants (8th Grade) • Example from Hydropower (7th Grade) • Example from Body Systems (6th Grade) **Lab Kits: pre-packaged materials that match the Lab Guide exactly**. Stile Lab Kits contain all the physical materials required to run every lab activity in a unit, organized and labeled to mirror the categories in the Lab Guide. Each unit has its own dedicated Reusable Materials box, containing equipment used across multiple sessions that is returned to the box after use, and its own Consumable Materials box, containing single-use items that are replenished as needed. Consumable kits are available at two scales: enough for one section of 32 students, or enough for five sections of 32 students, so schools can purchase the right quantity for their context without over-ordering. The General Equipment box provides shared classroom materials used across multiple units. Because the

kits map directly to the Lab Guide categories, teachers can locate and check off materials quickly before each session without any ambiguity about what belongs where.

Session plans: materials listed at the point of teaching. In addition to the Lab Guide, every lab session's Plan view lists the required materials for that specific session with per-group quantities, directly alongside the session purpose, learning goals, and preparation instructions. Teachers do not need to consult a separate document to know what to gather before class; the materials list is embedded in the same view where they review the session flow. Lab sessions are clearly flagged with a "Materials Required" tag in both the session plan and the teaching plan, so teachers can see at a glance which sessions require physical preparation.



Teaching plans: forward visibility of material preparation across the unit. The week-by-week teaching plan for each unit lists every session in order with preparation time estimates and flags for material requirements, giving teachers a forward view of when lab sessions are coming and how much setup time to plan for. This allows teachers to order consumables, organize kit boxes, and prepare

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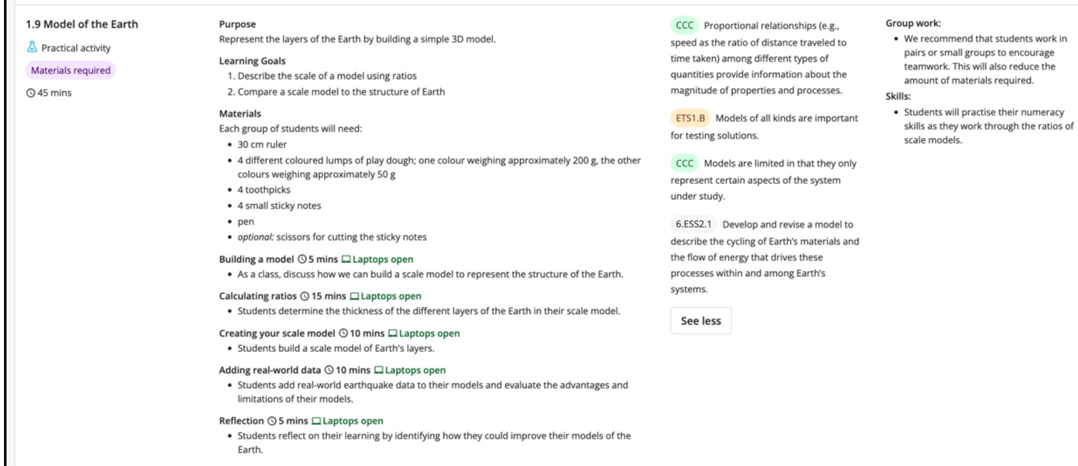
<td colspan="3">materials days or weeks in advance rather than discovering requirements the morning of a session.


Lab demo videos: seeing every material in action. Every lab activity has a demonstration video accessible directly from the session Plan view and at stileapp.com, showing each material being used in the correct way. These videos are particularly valuable for confirming that the right item has been sourced when alternatives or substitutions are being used, and for checking setup before class. For teachers new to a particular activity, the video provides a visual materials check that a written list alone cannot replicate.

Example from Energy
Example from Non-contact Forces
Example from States of Matter

The Stile "Just Works" guarantee. Stile stands behind its lab program with a formal guarantee: if a Stile lab activity does not work as documented, Stile will issue a $500 voucher toward lab equipment. This guarantee reflects the fact that every lab in the Stile program has been physically tested by the Stile curriculum team, and that the materials lists, quantities, and tips and tricks in the Lab Guides are based on that real-world testing rather than theoretical specifications.</td>
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<td colspan="2" rowspan="2">Criterion 2.2 Summary</td>
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Approaching Quality: 5-6
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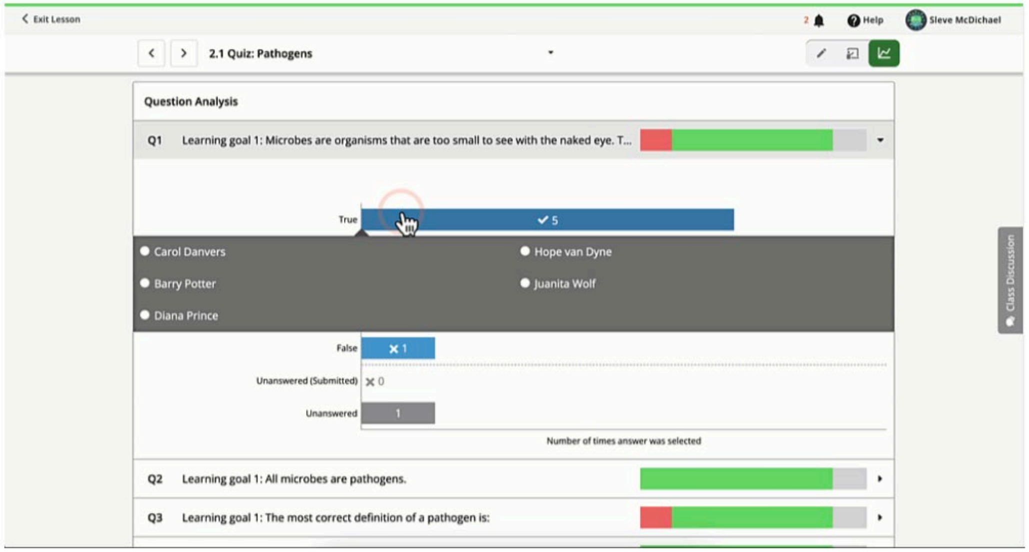
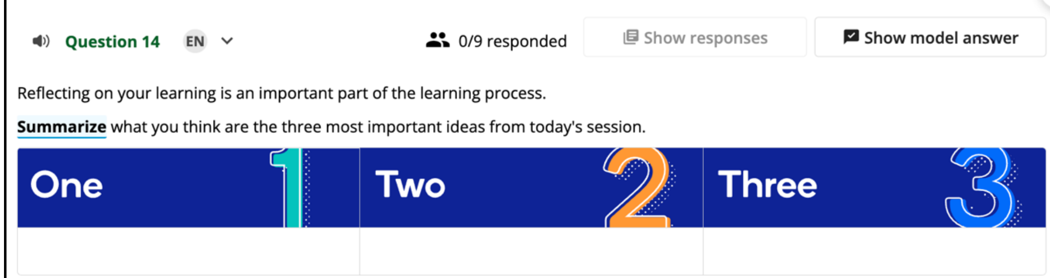
Criterion 2.3 Assessment	Materials provide opportunities to gather information on student learning, monitor progress, and evaluate understanding across a range of skills and knowledge levels.	
Indicators	**Guiding/Key Questions**	**Stile Evidence**
2h. Materials provide strategies for gathering information on students' prior knowledge and skills across grade levels.	Do the materials provide strategies for gathering information on students' prior knowledge and skills?	Stile provides multiple layered strategies for gathering information on students' prior knowledge and skills, both at the start of each unit and continuously throughout instruction. These strategies are built into the curriculum structure rather than left to teacher discretion, ensuring that prior knowledge elicitation is a consistent and purposeful part of every unit. **Unit pre-tests: structured diagnostic assessment before instruction begins**. Every Stile unit opens with a dedicated diagnostic session, labeled as a Pre-test, "What do you already know?", or Introduction depending on the unit. These sessions are designed specifically to surface what students already know, identify misconceptions, and give teachers a baseline picture of the class before new content is introduced. Pre-tests are not generic knowledge checks; they are carefully constructed to assess the specific prior knowledge the incoming unit depends on, using a variety of question types so that students with different strengths can demonstrate understanding in different ways. • The Pre-test: Plants session illustrates this well. It opens by assessing prior knowledge of cell biology from the Cells unit, using a drag-and-drop matching question on cell part functions and a Venn diagram comparing plant and animal cells. It then asks students to label the organs of a tomato plant, list what plants need to survive on Earth, and identify which of those things are absent on the Moon, directly activating the prior knowledge the unit will build on. The pre-test closes with a Creative Questions thinking routine asking students to generate their own questions about plants, giving the teacher a window into student curiosity as well as knowledge gaps. The note on Question 4 reads "It's OK if you're not sure about some of the organs, you'll learn about them later in this unit," making clear to students that this is a low-stakes baseline, not a test they are expected to pass. • The Pre-test: Ecosystems session takes a different approach to misconception diagnosis. Teacher-facing annotations embedded directly in the pre-test name three specific common misconceptions about food chains before students even begin, so teachers know exactly what errors to look for as they review responses. Questions then probe those exact misconceptions: students classify organisms, determine the direction of energy flow in food chains, evaluate a student-drawn food web for errors, construct their own food chain using a drag-and-drop canvas, and describe what they think an ecosystem is, with an explicit note that they are not expected to know the answer yet and can write "I'm not sure." This final question gives teachers a genuine snapshot of students' conceptual starting point for the unit without creating anxiety about not knowing the answer. Both pre-tests are point-scored and partially auto-graded for objective questions, so teachers can review results efficiently in Analyze Mode before their first teaching session without having to manually grade an entire class set. **Analyze Mode: turning diagnostic data into instructional decisions.** After students complete a pre-test or any session, teachers can open Analyze Mode to see a bird's-eye view of student responses across the class. For auto-graded questions, Analyze Mode displays the proportion of

students answering correctly and incorrectly at a glance. For written responses, teachers can review individual answers alongside model answers to gauge the quality of prior understanding. This data allows teachers to identify students who need foundational support, spot class-wide misconceptions that require explicit teaching before the unit progresses, and make informed decisions about grouping and differentiation. The teaching plan for each unit directs teachers to review pre-test responses in Analyze Mode as a preparation step before the first teaching session, making this a structured part of the planning process rather than an optional extra.



The Driving Questions Board: eliciting prior knowledge through student curiosity. Most Stile units includes a [Driving Questions Board session](#) in which students generate questions about the unit's anchoring phenomenon. This structured activity, scaffolded through the routine of brainstorm, share, organize, present, discuss, and decide, surfaces what students already know and believe about the topic through the questions they ask. A student who asks "Why are bees disappearing?" demonstrates different prior knowledge from one who asks "What even is biodiversity?", and both responses give the teacher valuable information about where the class is starting from. Teacher Tips within the Driving Questions Board session guide teachers on how to read the questions their students generate and use them to inform pacing and emphasis in the sessions ahead. The class returns to the Driving Questions Board throughout the unit to track how their understanding has grown, making it a running record of conceptual development rather than a one-time activity.

Session-level entry points: eliciting prior knowledge within every session. Beyond the unit pre-test and Driving Questions Board, Stile sessions consistently begin with structured activities designed to activate and surface prior knowledge before new content is introduced. These include Live Polls that ask students to take a position before they have been taught the answer, Live Brainstorms that invite students to contribute ideas anonymously, Think-Pair-Share and Turn-and-Talk routines that ask students to articulate what they already know before engaging with new material, and graphic organizers such as mind maps that give students a structured way to represent their existing understanding. Session plans include a Prior Knowledge note for relevant sessions, explicitly stating what prior knowledge is assumed and flagging where teachers should

		check for gaps before proceeding. See an example from the Active Earth unit. **Thinking routines: metacognitive prior knowledge tracking**. Stile uses a consistent set of Visible Thinking routines across units that help both teachers and students track how understanding is evolving. Routines such as "I used to think, but now I think" ask students to explicitly compare their prior beliefs against their current understanding, giving teachers a direct window into how prior knowledge has been revised over the course of a unit. These routines appear at session transitions and at the end of units, functioning as ongoing documentation of conceptual change rather than a single snapshot at the start.  **The Teacher Guide: year-level prior knowledge mapping.** The Oklahoma Teacher Guide includes a developmental progression section for each grade level that maps the prior knowledge each unit builds on and explains how understanding is extended across the year. This gives teachers a cross-unit view of where students should be coming from, so they can anticipate likely knowledge gaps and plan accordingly, particularly at the start of the year or when students arrive from a different curriculum.
2i. Assessment materials include embedded tasks that accommodate and reflect a range of knowledge and skill levels.	Do the assessment materials include tasks at varied levels of complexity that assess three-dimensional learning by integrating SEPs, DCIs, and CCCs?	Stile's assessment system is designed around a full spectrum of complexity, from foundational recall through to three-dimensional performance tasks requiring students to integrate disciplinary core ideas, science and engineering practices, and crosscutting concepts in authentic contexts. Assessment tasks are embedded throughout instruction rather than confined to end-of-unit tests, and the progression of complexity within and across assessment types ensures that every student has an entry point while still being challenged to demonstrate deeper understanding. **Within-session scaffolding: a built-in progression of complexity.** Every Stile session structures its questions to move students from lower to higher cognitive demand in a deliberate sequence. Sessions begin with low depth-of-knowledge questions that develop vocabulary and one-dimensional understanding, scaffolded with images, diagrams, and structured response formats. These build toward the Key Question, which appears in every session and is typically three-dimensional, asking students to integrate a disciplinary core idea, a science and engineering practice, and a crosscutting concept in a single response. Many sessions conclude with a Challenge Question that goes beyond the learning goal, asking students to apply their understanding in a new context or at a greater level of sophistication than is expected for the standard. This three-tier structure, foundational questions, Key Question, Challenge Question, ensures that all students access the core content and that those who are ready are extended further without requiring a separate assessment instrument. For example, in the Digital signals session (Waves unit), the session moves from igniting prior knowledge in a Live Brainstorm, to labeling questions then a hands-on activity that scaffolds mastery of a Key Question asking students to use the model they made to explain why the smartphone is a more reliable way to send your photos to a friend, and a Challenge Question asking them to then evaluate the claim that digital imaging is a faster and more reliable way to share medical

		information. The progression within a single session spans from recall to genuine scientific reasoning. **Formative check-ins: low-stakes snapshots between sessions**. Short check-in quizzes (example from Waves and Plants) appear at pivotal points between sessions throughout each unit. Typically around five to ten multiple-choice questions, they are auto-graded on submission so teachers can see immediately whether students have grasped a concept or whether reteaching is needed before the unit progresses. These check-ins sit at a lower complexity level than Key Questions by design, giving teachers a clean signal about content retention without requiring extended marking. **Unit tests: three-dimensional summative assessment at range of levels.** Every unit concludes with a summative test of 30-45 minutes that includes multiple-choice, drag-and-drop, and written response questions. Multiple-choice and drag-and-drop questions are auto-graded, while written response questions are accompanied by model answers that support the grading process and allow students to compare their reasoning against an exemplar. Critically, every unit test includes at least one three-dimensional application question presented in an unfamiliar real-world context, requiring students to integrate DCIs, SEPs, and CCCs together rather than recall isolated facts. Teacher Tips within unit tests flag which specific questions are assessing three-dimensional proficiency and identify the exact DCI, SEP, and CCC elements being assessed, so teachers know where to focus their attention when reviewing results. See examples from Plants (8^{th} Grade), Energy Conservation (7^{th} Grade), and Energy (6^{th} Grade), Real-world contexts in unit tests are deliberately chosen to be novel and engaging. For example, the Waves unit test presents students with the mimic octopus and the 1974 Arecibo message to explore wave properties and digital signals in unfamiliar scenarios. The Newton's Laws of Motion unit test applies concepts to astronaut Charles Duke's family photo left on the Moon during the 1972 Apollo mission, skydiving, and office chair basketball. The Plants unit test asks students to analyze an experiment into Venus flytraps. These contexts ensure that assessment cannot be passed through memorization alone and require students to actively use their understanding. **Performance tasks: extended three-dimensional assessment at the highest complexity level.** Engineering challenges, open-ended investigations, Socratic seminars, and research projects function as performance assessments that require students to demonstrate integrated three-dimensional thinking over multiple sessions. These are the highest-complexity assessment tasks in the curriculum and ask students to apply their understanding to genuine problems with multiple valid solutions rather than single correct answers. Engineering challenges are assessed using rubrics that evaluate the quality of the engineering process across define, design, create, test, evaluate, improve, and share phases, giving teachers a structured tool for assessing student thinking at every stage rather than only the final product. Students also use these rubrics for self-assessment and peer assessment before submission, building metacognitive skills alongside science content knowledge. **Multiple response modes accommodate a range of skills**. Across all assessment types, students can demonstrate understanding through written responses, drag-and-drop and labeling tasks, drawings, annotated diagrams, audio uploads, and video uploads. In Prepare Mode, teachers can convert any written response question to an open response question, allowing students who struggle with writing to demonstrate their understanding through an alternative mode without changing the cognitive demand of the question itself. **Teacher visibility across the complexity range**. In Analyze Mode, teachers can view a bird's-eye breakdown of student performance question by question across a whole assessment, seeing at a glance which questions students are finding accessible and which are revealing gaps. Because

		questions are structured at different complexity levels, this data tells teachers not just whether students are struggling but at what level of understanding the struggle is occurring, which directly informs the instructional response.
2j. Materials embed diverse formative assessment models, such as performance tasks, projects, and self-assessments, aligned to evaluate learning targets.	Do the materials include multiple types of formative assessments?	Stile treats formative assessment not as a separate event but as a continuous thread woven through every session, unit, and the 5E instructional cycle itself. The curriculum embeds multiple distinct types of formative assessment across the Engage, Explore, Explain, Elaborate, and Evaluate phases, so that teachers and students are always informed about where learning currently stands and what needs to happen next. **Formative assessment within the 5E instructional model.** Stile's 5E structure creates natural formative checkpoints at every phase. Engage phases surface prior knowledge and initial understanding through Live Polls, Live Brainstorms, and entry questions. Explore and Explain phases use Key Questions to assess whether students can construct explanations using evidence. Elaborate phases use open-ended investigations, engineering challenges, and model revision tasks to assess whether students can transfer their understanding to new contexts. The Evaluate phase, which is embedded across the unit rather than reserved for the end, draws on check-ins, unit tests, and performance tasks. This means formative information is gathered at every stage of the learning cycle, not only when formal assessment sessions are scheduled.

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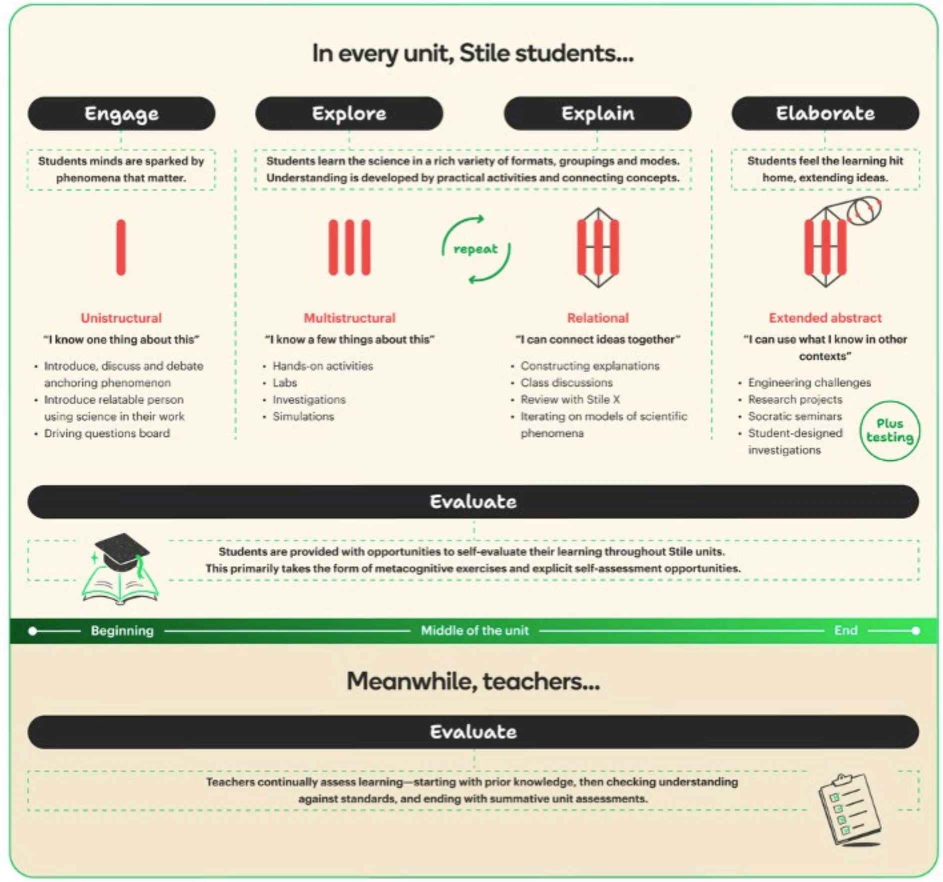

Teach Mode: real-time formative data during every session. During live teaching, Teach Mode gives teachers an immediate, session-by-session picture of where every student is. Progress bars on the left navigation fill in real time as students complete each question, and hovering over any question counter reveals individual student names, so teachers can identify who is stalling or who has moved ahead before the session ends. The Quick Review feature allows teachers to instantly display student responses on screen, compare them to the model answer, and facilitate a class discussion about what makes a strong response, all during the session itself. Research is clear that feedback is most powerful when it is immediate, and this in-session feedback loop allows students to improve their answers and consolidate understanding in real time rather than waiting for marked work to be returned.
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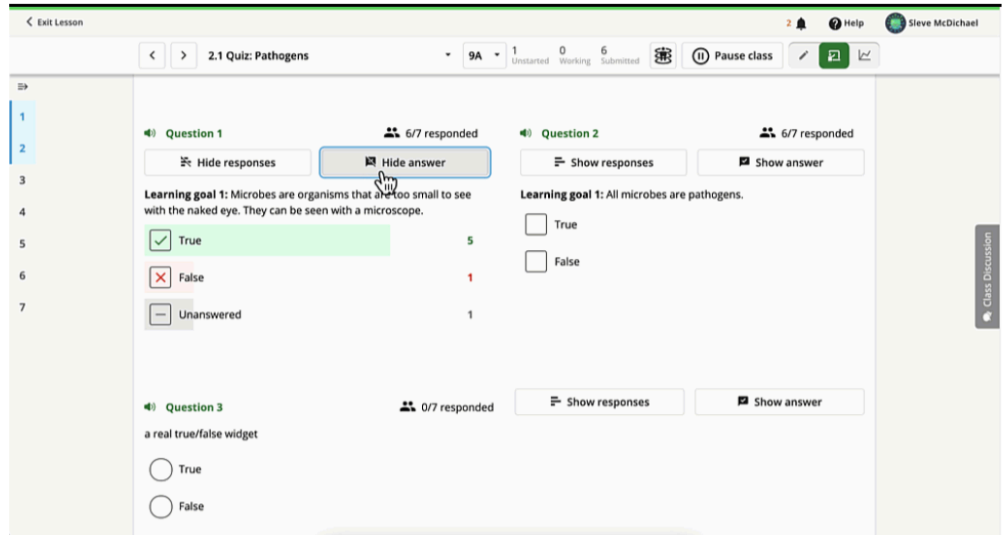
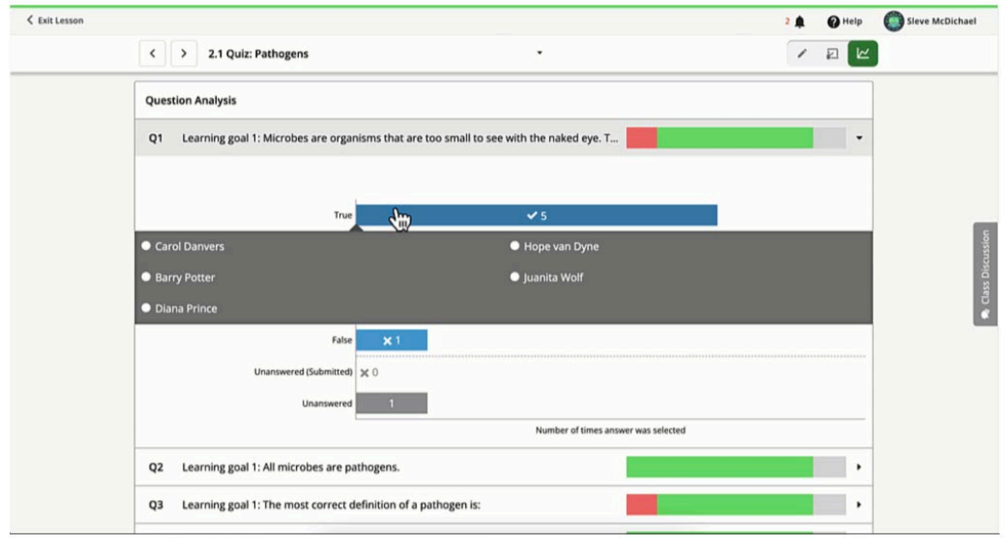
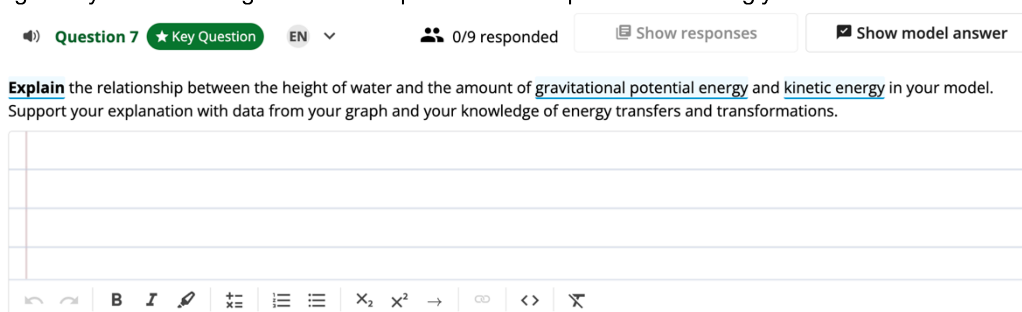
		 **Analyze Mode: post-session formative data to guide the next session.** After each session, Analyze Mode gives teachers a bird's-eye view of class performance. Color-coded bars show at a glance which questions were answered correctly and incorrectly across the class, making it immediately visible whether a concept needs reteaching, whether a small group requires targeted support, or whether the class is ready to progress. Teachers can drill down to individual student responses, leave written or annotated feedback on specific answers, and use the Gradebook to request resubmission from students who need to revise their work. The Gradebook also tracks student trends over time, giving teachers a longitudinal formative picture rather than only a snapshot at a single point.

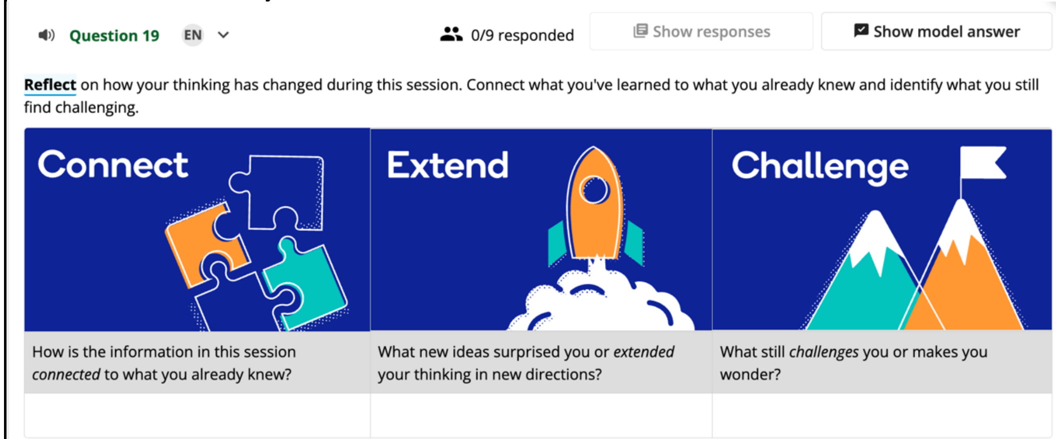


Formative check-ins: brief snapshots between sessions. Short check-in quizzes sit between sessions at pivotal points in each unit. Typically around five to ten multiple-choice questions, they are auto-graded immediately on submission so teachers can see before their next session whether students have grasped a concept or whether reteaching is needed. These check-ins are low-stakes and fast, designed to give teachers a clean signal about content retention without creating assessment burden for students. See an example check-ins here and here.

Key Questions: in-session formative assessment aligned to learning goals. Every Stile session includes at least one Key Question, explicitly aligned to the session's learning goal and typically requiring students to integrate a disciplinary core idea, science and engineering practice, and crosscutting concept. These are the primary in-session formative assessment tool, and teachers are advised to focus their grading effort on these questions. Because each Key Question is tied to a specific learning goal stated at the start of the session, teachers always know exactly what learning target they are assessing and can interpret student responses accordingly.



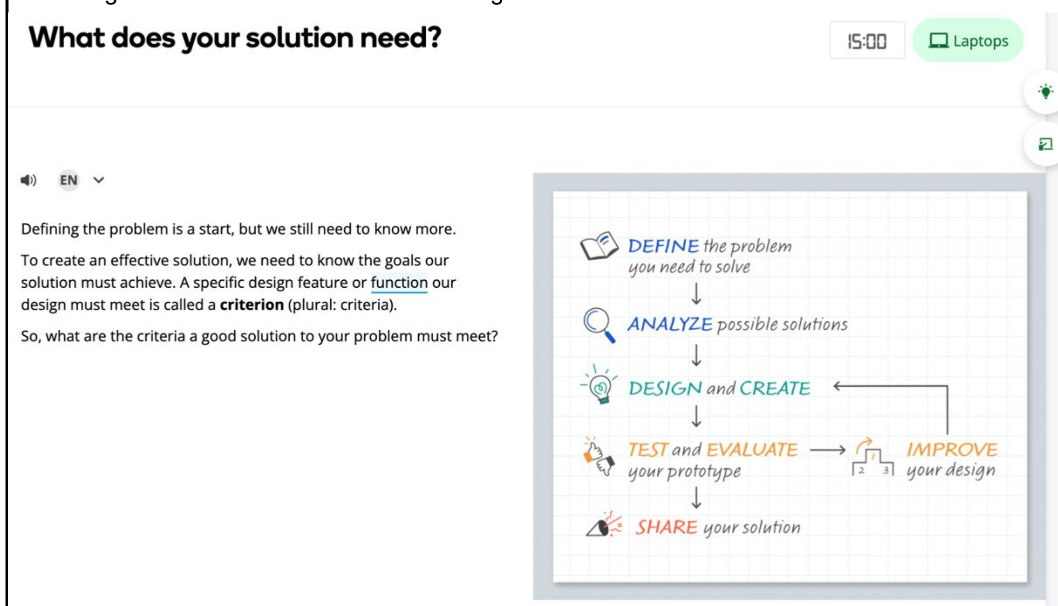
Thinking routines: metacognitive formative assessment. Over 300 Stile sessions conclude with a Visible Thinking routine that asks students to reflect on how their understanding has changed

		during the session. Routines vary across units and include formats such as "I used to think, but now I think", Link-Extend-Question, Very Important Points, and Connect-Extend-Challenge. These routines function as formative assessments of metacognitive development, giving teachers a window into whether students recognize their own conceptual shifts and can articulate what they now understand that they did not before.  **Stile X: student-driven self-assessment.** The Stile X student workbook (example here) provides a structured space for students to assess their own understanding outside of class sessions. The Check Your Understanding sections at the end of each session's notes ask students to rate their depth of knowledge against the learning goal on a scale from not yet confident to fully able to explain it. The Test Preparation section includes a self-scorer where students rate each response as "Not yet," "I can do this," or "I can teach this!" after comparing their own written answers to the model answers, prompting students to identify exactly which areas need further study before an assessment. This turns review into an active formative task rather than passive re-reading. Stile X also includes success criteria listed at different depths of knowledge for each learning goal, allowing students to identify precisely where their understanding currently sits and what the next step looks like.
2k. Varied models of summative assessments, including performance-based tasks, questions, and projects, are embedded into the content materials to assess the learning targets.	Do the materials include multiple types of summative assessments?	Stile provides a varied and comprehensive summative assessment system that goes well beyond traditional end-of-unit tests. Every unit includes multiple distinct summative assessment types that ask students to demonstrate mastery in different ways, ensuring that students who excel in performance, argumentation, design, or written response each have appropriate opportunities to show what they know. **End-of-unit tests: standards-aligned written summative assessment.** Every Stile unit concludes with a written test of 30-45 minutes that functions as the primary standards-aligned summative assessment of content knowledge. Tests include multiple-choice, drag-and-drop, and constructed response questions at varied levels of complexity, with auto-grading for objective questions and model answers to support teacher grading of written responses. Every unit test includes multi-part application questions set in an unfamiliar real-world context, explicitly designed in the spirit of PISA-style assessment, requiring students to integrate disciplinary core ideas, science and engineering practices, and crosscutting concepts together rather than recall isolated facts. For example: • The Test: Heat (6th grade) opens with foundational multiple-choice questions defining heat

and determining the direction of thermal energy transfer in a familiar context (cooking pancakes), before moving into constructed response questions that require students to use the particle model to explain why temperature decreases over time in an insulation investigation, connecting their lab data to the underlying science.

- The Test: Ecosystems (7th grade) moves from single-answer multiple-choice questions on energy transfer and cellular respiration through to a multi-part application section centered on a lake ecosystem, where students analyze a multi-species population graph, explain how changes in large bird populations affect insect populations, and predict the cascading effects of introducing an invasive beetle, requiring students to use patterns and cause-and-effect reasoning in a novel context.
- The Test: Non-contact Forces and Electricity (8th grade) opens with a four-question scenario about two students (Jose and Madison) investigating electromagnet strength, asking students to identify variables from a graph, read data, and interpret results, before moving into further application questions requiring students to integrate their understanding of magnetic force, field direction, and engineering design.

Engineering challenges: summative assessment through design and making. Every Stile unit that includes an engineering challenge uses it as a multi-session summative performance task assessed against a rubric. The engineering design process spanning define, design, create, test, evaluate, improve, and share requires students to integrate science content knowledge, engineering practices, and crosscutting concepts in a genuine design context. Students are assessed at the final presentation stage and at iterative improvement stages throughout the challenge, so the summative record reflects the quality of design thinking across the process, not just the final product. Students self-assess and peer-assess using the same rubric before presenting. For example, in the Importance of Biodiversity unit, the engineering challenge culminates in a Showcase session where students complete a gallery walk and peer-assess two other groups, with the class collectively evaluating which solution best meets the design brief.



		Socratic seminars: summative assessment through structured argument. Several Stile units include Socratic seminars as a summative task (example) assessing students' ability to construct and defend evidence-based arguments, evaluate competing scientific claims, and engage in scientific discourse. These sessions require students to integrate content knowledge from across the unit into a verbal and written argument about a real-world issue, assessing SEPs including Engaging in Argument from Evidence and Obtaining, Evaluating, and Communicating Information in a way that written tests alone cannot capture. Examples include debates about how we should use antibiotics (the biological changes over time unit) and whether single-use plastics should be banned (Ecosystems unit). **Research projects: summative assessment through sustained inquiry.** Several units include extended research projects (e.g. Extinction Part 1 and Part 2) that allow students to demonstrate mastery through self-directed investigation and communication. Students apply the unit's core concepts to a problem or question, demonstrate information literacy by evaluating sources, and present findings designed for an authentic audience. Examples include the Plants unit, where students research how plants survive extreme conditions, and the Ecosystems unit, where students research the impact of single-use plastics from different stakeholder perspectives. **Model building and revision: summative assessment of conceptual development.** In units centered around developing and revising models, such as Waves, students complete a final model revision session as a summative task. The Waves unit concludes with students making final updates to their group's global communication model and closing off their Driving Questions Board, demonstrating through their revised model how their understanding of wave properties, digital signals, and global telecommunications has grown across the unit. The final model serves as a summative artifact reflecting the full arc of learning. **Open-ended investigations: summative assessment through scientific practice.** Open-ended investigations (example) where students design and conduct their own inquiry function as summative assessments of SEPs including Planning and Carrying Out Investigations and Analyzing and Interpreting Data. Because students make their own methodological choices, these tasks produce genuinely varied student work that cannot be completed through recall and are assessed using rubrics that evaluate the quality of scientific thinking rather than a single correct answer. **Rubrics: making learning targets visible across all performance tasks.** All performance-based summative assessments are accompanied by rubrics (example from the Genetics unit and example Hydropower unit) that describe levels of proficiency across the dimensions being assessed. Rubrics are editable by teachers, available to students throughout the task rather than revealed only at grading, and used for self-assessment and peer assessment as well as teacher grading, so students always understand what mastery looks like for each summative task type. **End-of-Grade 8 Oklahoma Practice Test: preparing students for high-stakes assessment.** In addition to unit-level summative assessments, Stile includes a standalone End-of-Grade 8 Practice Test designed specifically to prepare 8th grade students for Oklahoma's state science assessment. This practice test mirrors the Oklahoma state test closely in rigor, Lexile level, content coverage, question format, and item weighting, so that students encounter the same demands in a low-stakes classroom context before they sit the actual exam. Every item is aligned to the Oklahoma Academic Standards for Science, and the test generates strand-level analytics in Analyze Mode so teachers can immediately see which content areas and skills need additional attention before test day. Because the practice test lives inside the same Stile platform students use daily, it feels like a natural continuation of their classroom experience rather than a jarring gear shift, reducing test anxiety while building genuine content confidence. Multiple-choice and drag-and-drop questions are auto-graded immediately, and written response questions are accompanied by model answers, so teachers can review results and adjust final instruction without spending significant time on grading.

		This turns state test preparation from a last-minute scramble into a purposeful, data-informed final step in the instructional sequence.		
Criterion 2.3 Summary		**Subtotal**	**Rating Levels**	**Rating**
		___/ 8	**Exemplifies Quality:** 7-8 **Approaching Quality:** 5-6 **Not Represent Quality:** 0-4	

Gateway 2 Points Available	Rating Levels	Gateway 2 Points Achieved	Gateway 2 Rating
24	**Exemplifies Quality: 19 - 24**	**/ 24**	
	Approaching Quality: 12 - 18		
	Does Not Represent Quality: 0 - 12		

Gateway 2 Comments

Gateway 3: Access and Technology

High-quality instructional materials offer digital resources that support teaching and learning in various ways, enabling schools to enhance instruction and foster student engagement. Educators determine the Gateway rating by analyzing evidence from the instructional materials and scoring indicators tied to each criterion.

❑ **Materials must receive a score of Exemplifies Quality or Approaching Quality in Gateway 2 to be reviewed in Gateway 3.**

Gateway 3: Overview	Indicators	Available Points
Criterion 3.1: Access Materials provide easily accessible digital resources that support all learners, offer clear pathways for engagement, and address the needs of all learners.	3a-3d	10
Criterion 3.2: Technology Materials integrate digital technology and interactive tools, when appropriate, to enhance student engagement and support learning.	3e-3h	8
Total Points		18

Criterion 3.1 Access	Materials provide easily accessible digital resources that support all learners, offer clear pathways for engagement, and address the needs of all learners.	
Indicators	**Guiding/Key Questions**	**Stile Evidence**
***3a. Materials integrate digital technology and interactive tools (e.g., data collection tools, simulations, modeling, and discussion groups) to support student engagement in the three dimensions of science.**	Do embedded technology tools enhance learning for all students and support engagement in the three dimensions of science?	Stile's digital platform is built on the principle that best-practice, evidence-based teaching should be the path of least resistance. Every tool in Stile exists to make it easier for teachers to facilitate great science instruction, to give students more ways to engage with three-dimensional learning, and to ensure assessment and feedback happen in real time rather than days later. The platform operates across three modes, Prepare, Teach, and Analyze, each designed for a distinct phase of the instructional cycle. The table below summarizes the key digital tools across each mode and their specific role in supporting student engagement and three-dimensional learning.

Tool	What it does	How it supports 3D learning and engagement
Prepare Mode		
Full lesson editability	Teachers can add, delete, or modify any content in any session using the same widget toolkit the Stile content team uses. Content widgets include: Text, Annotate image, Image, Share file, Video, Audio, Table, Simulation, Section, Engagement strategies, and Character conversation. Question widgets include: Written response, Multiple choice, True or false, Graph, Interactive canvas, Table question, Student upload, and Open response. Additional tools	Allows teachers to adjust Lexile level, add sentence starters, swap question types, embed local Oklahoma phenomena, insert simulations, or build entirely new sessions from scratch using the same tools Stile's curriculum team uses.

	include Side by side and Teacher tip.	
Add scaffolds and extensions	Teachers can insert sentence starters, additional discussion questions, open response alternatives, or Challenge Questions directly into a session before class.	Ensures all students can access the same three-dimensional content regardless of reading level or language proficiency, while extending students who are ready for greater depth.
Add Teacher Tips	Teachers can insert their own private annotations visible only to them during teaching, alongside Stile's built-in curriculum tips.	Supports consistent delivery by allowing teachers to flag differentiation strategies, discussion prompts, or co-teacher notes for themselves.
Print any session	Any session can be printed as a student handout, questions-only worksheet, teacher notes version, or model answers document, making it a fully usable in-class worksheet rather than just a digital resource.	Ensures students without reliable device access receive the same content, diagrams, and question types as students working digitally, and allows teachers to choose print for sessions where removing screens serves the learning better.
Controlled lesson release	Teachers release sessions to the whole class, specific groups, or individual students.	Allows teachers to assign remediation sessions to students who need foundational support without disrupting the rest of the class, or to release extension sessions to advanced learners only.
Teach Mode		
Teleport	Clicking Teleport redirects all logged-in students in the class to the current session immediately. It runs for 60 seconds and also catches students who log in during that window.	Ensures the whole class starts at the same point instantly, eliminating the common problem of students being on different pages or different sessions at the start of a class.
Live progress tracking	Real-time progress bars in the left navigation panel show how many students have attempted each question; hovering reveals individual names.	Allows teachers to identify who needs support or extension during the session itself, so instructional responses happen in the moment rather than after the fact.
Quick Review and Show Responses and Show Answer	Opens a student-by-student view of responses to any question. Teachers can scroll through individual responses (anonymously or named), grade them, and leave feedback directly from this view. Also displays student responses alongside the model answer on the class screen.	Gives teachers a granular picture of individual understanding during or after class, enabling targeted feedback loops without requiring a separate grading session. Drives peer feedback, growth

		mindset discussions, and class-wide modeling of scientific reasoning without singling out individual students.
AI feedback	Stile Intelligence provides automated formative feedback on student written responses, flagging quality and key ideas against the model answer.	Reduces teacher workload on routine feedback so teachers can focus attention on the responses and students that most need it.
Paste detection	Students receive a pop-up warning if they paste content from outside Stile. Teachers can view which sections of a student's response have been pasted.	Encourages students to construct their own scientific explanations and supports academic integrity in open-ended responses.
Present videos and simulations	Teach Mode displays videos and simulations in a clean, full presentation view with no editing tools visible. Teachers can run simulations as whole-class activities or use them as discussion starters. This is also useful when students cannot access video platforms on the school network but teachers can. For example, the Wave Properties simulation can be run whole-class so the teacher manipulates variables live while students observe and discuss; the Natural Selection simulation in the biological changes over time unit can be projected as a whole-class modeling activity.	Brings the Explore and Explain phases of the 5E model to life with shared visual experiences that make abstract disciplinary core ideas concrete.
Live Polls	Students respond to a question in real time; results display as a live graph. Responses are anonymous by default; clicking a poll option reveals who selected it.	Surfaces prior knowledge, checks for understanding at key moments, and ensures every student contributes including those who wouldn't volunteer verbally.
Live Brainstorms	Students submit ideas anonymously to a shared class brainstorm in real time. Teachers control whether responses are visible to other students and can manage the display of ideas during discussion.	Ensures all students contribute to collaborative sense-making without peer pressure, supporting the SEP of Obtaining, Evaluating, and Communicating Information.
20+ Engagement Strategies	A built-in toolkit of evidence-based engagement strategies (e.g. Jigsaw, Carousel Brainstorm, Whiteboard Wipeout, Note-taking Pairs) accessible in one click during class. Learn more here.	Allows teachers to respond to classroom dynamics in real time, shifting between whole-class, small-group, and individual structures to keep all students actively engaged with science content.
Class Pause	Freezes all student screens with a message reading "Eyes on your teacher."	Allows teachers to redirect attention for whole-class instruction, video viewing, or discussion without losing the class mid-session.

Student Randomizer	Randomly selects a student to share an answer or contribute to discussion.	Promotes equitable participation by ensuring all students remain ready to contribute, not just confident volunteers.
Timer	A visible countdown timer for timed activities.	Supports pacing during investigations, engineering challenges, and timed group tasks without requiring teacher interruption.
Translation toggle	Enables Spanish translation of all session text for eligible students.	Ensures English language learners access the same disciplinary core ideas in their home language without being separated from grade-level content.
On-hover glossary	Every underlined key term displays a definition, image, and audio pronunciation in English or Spanish on hover.	Supports vocabulary development in context, keeping students engaged with the scientific ideas rather than leaving the session to look up terms.
Analyze Mode		
Auto-grading	Multiple-choice, drag-and-drop, true/false, and labeling questions are graded instantly on submission.	Frees teachers from routine grading and gives students immediate feedback, allowing them to revise responses before the session ends.
Class performance dashboard	Color-coded bars show correct and incorrect response rates per question across the whole class.	Allows teachers to identify at a glance which concepts need reteaching and which students need targeted support before moving to the next session.
Individual student review	Teachers can view any student's full response history, leave written or annotated feedback, and request resubmission.	Supports personalized feedback loops grounded in evidence of each student's actual scientific thinking.
Gradebook	Tracks student performance across all sessions and assessments over time, with export to spreadsheet.	Provides a longitudinal record of student progress through the three dimensions, supporting data-informed conversations with students, families, and support staff.
Stile X Interactive Resources		
Smart flashcard quizzes	Adaptive quizzes at stileapp.com learn which vocabulary terms a student still needs to practice and prioritize those in subsequent rounds. Example here.	Supports retrieval practice of disciplinary core idea vocabulary, ensuring students build the language they need to engage in scientific argument and

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<tr><td></td><td></td><td>explanation.</td></tr>
<tr><td>60-second video summaries</td><td>Short unit summary videos available at stileapp.com provide a concise visual and auditory review of key concepts. Example here.</td><td>Supports students who learn better through audio-visual formats and provides a quick reference for study or catch-up without requiring re-reading a full session.</td></tr>
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<td>3b. Digital materials can be manipulated to construct personalized learning experiences or differentiate content for individual students.</td>
<td>Are teachers able to customize digital materials for local use and differentiate learning?</td>
<td>Stile is designed to work beautifully out of the box while remaining fully adaptable to every classroom, student, and context. Teachers are not locked into delivering content as authored; the same tools the Stile curriculum team uses to build sessions are available to every teacher, so customization is not a workaround but a first-class feature of the platform. Differentiation and localization happen at the session level, the unit level, and the student level, giving teachers meaningful control over how, when, and to whom content is delivered.

Session-level customization: editing any part of any session. Every Stile session can be edited in Prepare Mode (learn how here) using the full content and question widget toolkit. Teachers can add, remove, reorder, or modify any existing element, or build entirely new content from scratch. Practical examples of what teachers can do include: adjusting the reading level of a text passage to better suit a class; inserting a photo of a local Oklahoma phenomenon alongside the existing anchoring phenomenon to make the content feel immediately relevant; embedding a video recorded by the teacher themselves to add a personal instructional voice; adding sentence starters below a Key Question for students who need writing scaffolds; replacing a written response question with an open response question so a student can submit a drawing, audio recording, or video instead; editing a model answer to create a leveled exemplar for students who need a more structured reference; adding Challenge Questions for students who are ready to go beyond the learning goal; modifying vocabulary to match the terminology the class already uses; or inserting additional discussion questions to support English language learners in constructing understanding collaboratively before writing independently. Sessions can also be duplicated so that a teacher can create a differentiated version of the same session without altering the original, assigning each version to different student groups.
Unit-level customization: reordering, adding, and building. Beyond individual session editing, teachers can drag and drop sessions within a unit folder to reorder the learning sequence in response to student interest or pacing needs. Optional and extension sessions that ship with each unit, such as 4.3 Mythbusters – Cell division session in the Cells unit, can be assigned selectively to students who are ready for additional challenge. Teachers can also add sessions from the Stile library to a unit, including supplementary units such as the SEP skill-builder unit, which targets students who need explicit practice with science and engineering practices before engaging fully with grade-level content. For teachers who want to build entirely original content, the Stile Teacher Templates and Resources library provides ready-to-use templates for investigations, engineering challenges, research projects, labs, quizzes, Driving Questions Boards, and escape rooms, all using the same authoring tools as the rest of the platform.
Student-level differentiation: controlled release of content. Every session in a unit folder can be released to all students, to specific groups, or to individual students independently (learn how here). This means a teacher can assign a remediation session only to students who struggled in a pre-test, release an extension investigation only to students who have demonstrated mastery, or keep assessments hidden until the whole class is ready while allowing individual students open-book access to prior sessions. Assign due dates at the individual or group level and students receive a notification, supporting time management for independent tasks. Teachers can also request resubmission from individual students or the whole class, allowing students to revise and improve their work after receiving feedback.
Oklahoma-specific phenomena: local science built into the curriculum. Stile has developed Oklahoma-specific phenomena directly into the grades 6-8 curriculum as part of its alignment to the 2026 Oklahoma</td>
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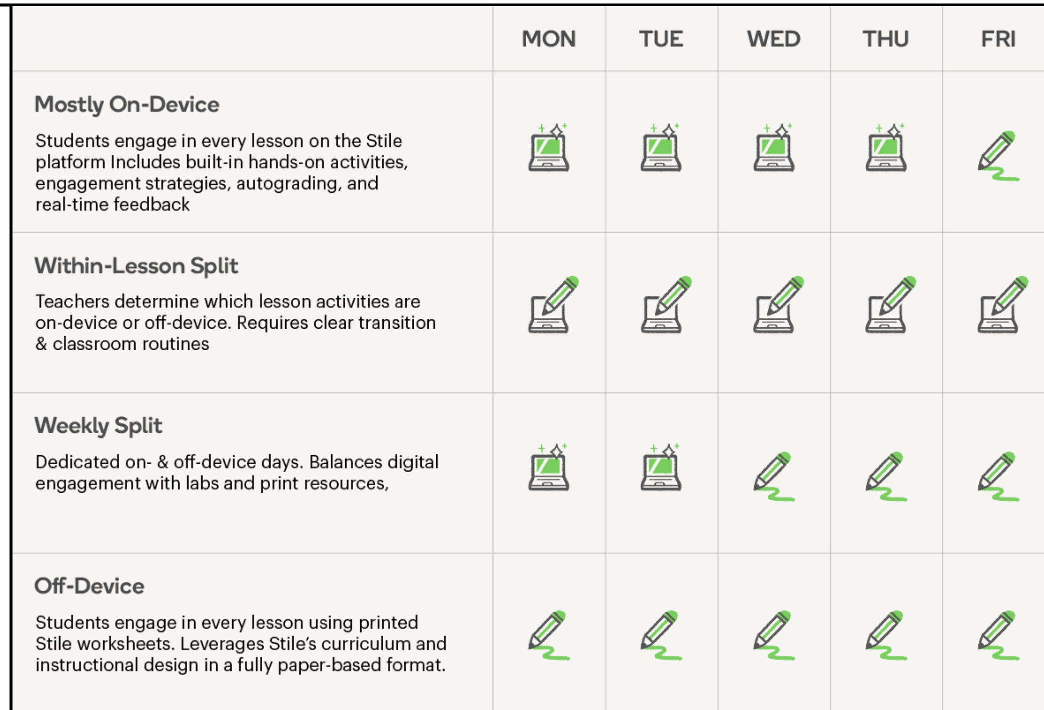
		Academic Standards for Science. These are not superficial references; they are genuine anchoring contexts that connect the science students are learning to the natural environment of Oklahoma. Three examples from across the curriculum illustrate the depth of this localization. In the Ecosystems unit (grade 7, OAS-S 7.LS2.1), students investigate the Ozark cavefish, a rare eyeless species adapted to the limestone cave systems of northeastern Oklahoma. Students use this phenomenon to explore how resource availability shapes populations and why human activity threatens fragile underground ecosystems. In the Earth Systems unit (grade 6, OAS-S 6.ESS3.2), students investigate Oklahoma's position at the heart of Tornado Alley across two sessions, exploring real tornado data and analyzing why the state's flat geography creates conditions where warm Gulf air collides with cold northern air to produce some of the most severe weather on Earth. In the Our Place in Space unit (grade 8, OAS-S 8.ESS1.3), students explore how Oklahoma's Black Mesa, recognized as a Dark Sky Park, provides some of the best astronomical observation conditions in the country, using this context to investigate how data from telescopes and space probes reveal patterns and properties of the Solar System. These Oklahoma phenomena mean that students encounter their own state as a site of real scientific inquiry. Teachers can layer additional local examples on top of these built-in contexts using Stile's session editing tools. **Classroom-level localization: making science relevant to Oklahoma students.** All Stile sessions can be customized with locally relevant content. Teachers can add images of Oklahoma-specific phenomena, link to current science news affecting the state, or rewrite examples to reference local contexts. The anchoring phenomena in Stile units are selected to be broadly relatable, but the editing tools make it straightforward for teachers to add a local layer on top. For example, a teacher in a district near Oklahoma's tallgrass prairies could add photographic evidence of local biodiversity to the Importance of Biodiversity unit, or a teacher near an active earthquake zone could embed local seismic data into the Active Earth unit. Teachers can also record their own audio narration for any section of text, adding a personal voice to the automated read-aloud and providing a model of fluent scientific language in their own classroom dialect. **District-level collaboration: sharing customized content across teams.** Customized sessions and units can be copied and shared across teacher accounts within a district, meaning that one teacher's thoughtful localization or scaffolding work can benefit the whole department rather than sitting in a single classroom. Districts can build a shared, customized scope and sequence that reflects their local context, pacing calendar, and student population, with Stile's curriculum as the high-quality foundation and local teacher knowledge layered on top. **Data-driven personalization: using analytics to inform individual pathways.** Differentiation in Stile is not guesswork. Pre-test data reviewed in Analyze Mode before a unit begins, Key Question performance reviewed after each session, and check-in results at pivotal points across the unit all give teachers a granular, student-by-student picture of where understanding is strong and where gaps exist. This data directly informs which students receive which content through the controlled release system, making personalization grounded in evidence rather than assumption.
3c. Digital materials are platform-neutral and compatible with multiple operating systems and internet browsers.	Do materials identify whether they are compatible with multiple systems?	Stile is a browser-based platform requiring no downloads, installs, plugins, or add-ons. Stile works on whatever hardware Oklahoma schools already have in their classrooms. **Device compatibility.** Stile runs on Chromebooks, iPads, Windows laptops, Mac laptops, Android tablets, and desktop computers. It is designed to be used on student devices of all screen sizes and presented at the front of the classroom on a display panel or projector. Teachers and students access the same platform from any device with an internet connection, so there is no separate teacher version or student app to manage. While it will run on a mobile device (iPhone size), we do not believe this gives the best experience for students or teachers. **Browser compatibility.** Stile is compatible with all modern web browsers, including Chrome, Safari, and Firefox. Internet Explorer is the only browser not supported. No browser extensions, plugins, or special configurations are required. **Operating system compatibility.** Because Stile is entirely browser-based, it is OS-agnostic. It runs on Chrome OS, macOS, Windows, iOS, and Android without modification. Schools do not need to manage software

		installations, updates, or version compatibility across devices. **LMS and SSO integration.** Single Sign-On is supported via Clever (oAuth), ClassLink, Microsoft (oAuth or SAML), Google, or any other SAML-compliant Identity Provider, meaning students and teachers can access Stile through their existing school login credentials without creating separate accounts. Student rostering is fully supported via Clever and ClassLink, reducing administrative setup for IT departments. Gradebook grade passback is also supported with Canvas and can be integrated with other LMSs. **Offline access.** Each Stile session can be printed or saved as a PDF for offline use as a student worksheet. Stile X student workbooks provide a fully offline study and review resource that mirrors the digital content without requiring any connectivity.
3d. Non-digital versions of materials are available for students without off-campus internet access.	Do materials provide non-digital alternatives for activities that require technology access?	Stile is designed around the reality that digital access is not uniform across all students, households, or even classrooms. Non-digital alternatives are built into the curriculum by design, not treated as a fallback, meaning that students without off-campus internet access are not disadvantaged in their ability to engage with the content, complete work, and review their learning. **Printed sessions as in-class handouts.** Every Stile session can be printed or saved as a PDF directly from the platform in multiple formats: a student handout with all content and questions, a reduced content handout, a teacher notes version, or a model answers document. The printed version is a fully formatted, standalone worksheet containing the same images, diagrams, text, and question types as the digital version. Students working from a printed session complete their responses by hand and teachers can collect and respond to that work directly. This makes printing a genuine non-digital mode of delivery, not a degraded version of the digital experience. **Teaching plans recommend on and off-device use, but every session can be taught in either format.** Teaching plans include guidance on when devices add the most value within each session, whether that is for accessing a simulation, submitting responses in real time, or engaging with live formative tools. However, every Stile session can be taught in either digital or print format regardless of those recommendations, and the choice is always the teacher's. A session that is typically delivered digitally can be printed and run as a paper worksheet whenever devices are unavailable, whether that is due to a student being without home internet access, a class set of devices being unavailable, or a teacher choosing print for pedagogical reasons. No session is locked to digital-only delivery.



Stile X student workbooks: a fully offline review and study resource. The Stile X printed workbook is a purpose-built physical companion to the digital sessions that requires no internet connection at any point. It contains structured note-taking pages, vocabulary activities, graphic organizers, cloze activities, Frayer models, practice questions, and self-assessment tools for every unit, giving students a rich offline resource for consolidating and reviewing their learning outside of school. Stile X is available as a physical book or PDF (example here), is also available in Spanish, and is designed to be used independently at home without teacher facilitation. Study resources including flashcards and video summaries (example) are available at stileapp.com for students who do have internet access, but the workbook functions as a complete, self-contained resource for those who do not.

Lab activities require no internet access. All hands-on lab activities, practical activities, open-ended investigations, and engineering challenges are physical, materials-based activities that do not require a device to complete. Lab Guides (example) provide printed step-by-step instructions with photographs for every activity, so students and teachers can run every lab in the curriculum without any digital component. Where demonstration videos (example) are referenced, these are accessible via QR code for teachers who want to preview them before class but are not required during the activity itself.

Criterion 3.1 Summary	Subtotal	Rating Levels	Rating
	_ / 10	**Exemplifies Quality: 8-10** **Approaching Quality: 6-7** **Not Represent Quality: 0-5**	

Criterion 3.2 Technology	Materials integrate digital technology and interactive tools, when appropriate, to enhance student engagement and support learning.	
Indicators	**Guiding/Key Questions**	**Stile Evidence**
3e. Digital materials are responsive to students needs determined by student input and interaction to create a personalized learning experience aligned with content and three-dimensional science practices	Do materials promote individualized learning experiences that are aligned with content goals and the three dimensions of science?	Stile's approach to personalized learning is grounded in data. Student responses, interaction patterns, and performance across sessions generate a continuous stream of evidence that teachers use to make targeted, individual decisions about what comes next for each student. This data-responsive cycle, from student input to instructional adjustment to differentiated content delivery, is built into the normal flow of teaching with Stile rather than requiring separate systems or additional planning time. **Analyze Mode and Quick Review: turning student responses into instructional decisions.** After every session, Analyze Mode gives teachers a question-by-question breakdown of how each student performed. For auto-graded questions, color-coded bars immediately surface which students answered correctly and which did not. For written responses, Quick Review allows teachers to scroll through individual student answers session by session, grading and leaving targeted feedback in one place. Together these tools make it straightforward to identify three distinct situations requiring different responses: a single student who is consistently struggling and needs a one-on-one intervention; a small group of students who share a common misconception and would benefit from targeted small-group work; or a large portion of the class who all struggled with a particular concept, signaling that whole-class reteaching is needed before moving on. Critically, this data directly shapes what teachers do to the next session before students see it. A teacher reviewing Analyze Mode after a session on food chains might notice that most students misunderstood the direction of energy flow arrows. Before releasing the next session, they can open it in Prepare Mode and paste the previous lesson's Key Question, or a note flagging the common misconception, at the top of the session as a Do Now or discussion prompt, so students revisit and consolidate the concept before new content is introduced. This tight loop between student performance data and the editing of upcoming sessions means every session can be personalized to what the class actually needs, not what the curriculum assumed they would need. See more about Analyze Mode here.

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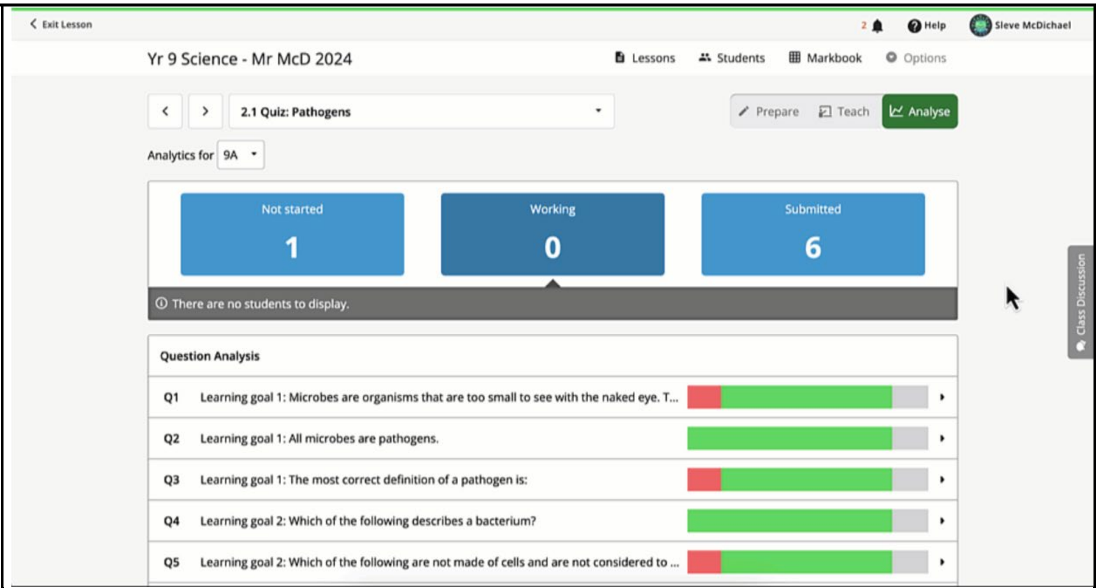

Feedback: the most powerful tool for personalizing learning. Research consistently shows that timely, specific feedback is one of the highest-impact levers for improving student outcomes, and Stile's platform makes it practical to deliver at scale. Teachers can leave written feedback on individual questions, highlight or annotate specific phrases in a student's response, leave audio feedback at the end of a session, or flag responses for resubmission, all from within the same platform where students do their work. Students receive a notification when feedback is available and can act on it immediately. More on leaving feedback here and gradebook processes here.
The most significant feedback tool in Stile is AI-assisted speed grading through Stile Intelligence. When a teacher opens a student's written response, Stile Intelligence uses the power of AI to suggest a first-draft feedback comment, drawing on the session content, best-practice feedback formats, the learning goal, and the model answer to generate a response that is contextually grounded rather than generic. The teacher reviews, edits, and approves the suggestion before it reaches the student, meaning AI accelerates the feedback process without removing teacher judgment from the loop. This makes it feasible for teachers to provide meaningful, personalized written feedback on Key Questions across a full class set rather than reserving it only for assessments, which means students receive feedback when it is most useful: while learning is still in progress.
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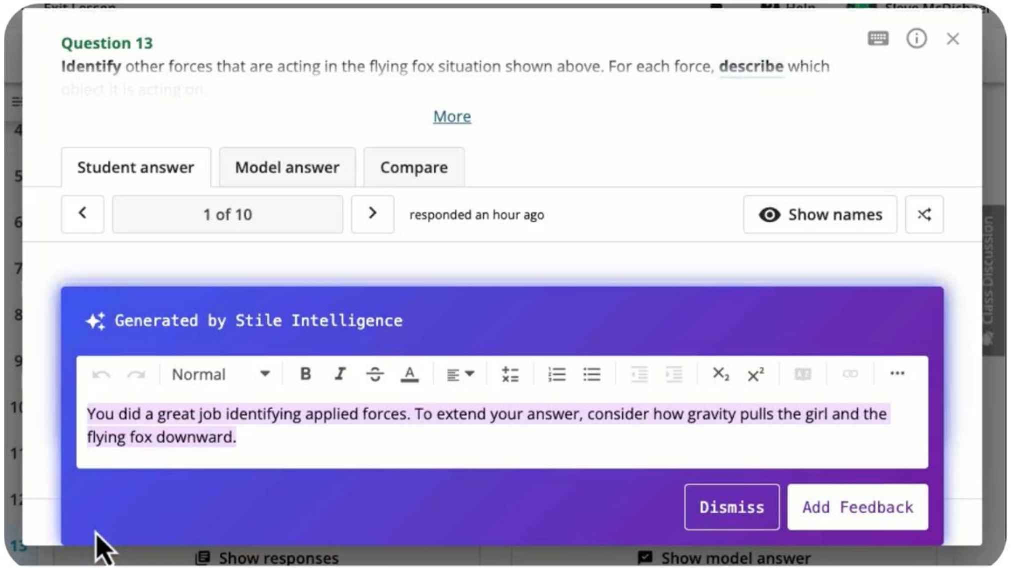
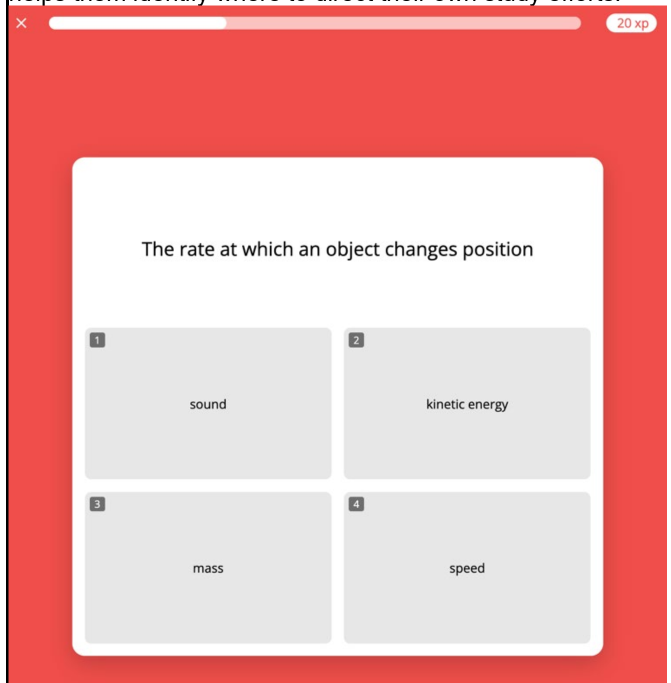
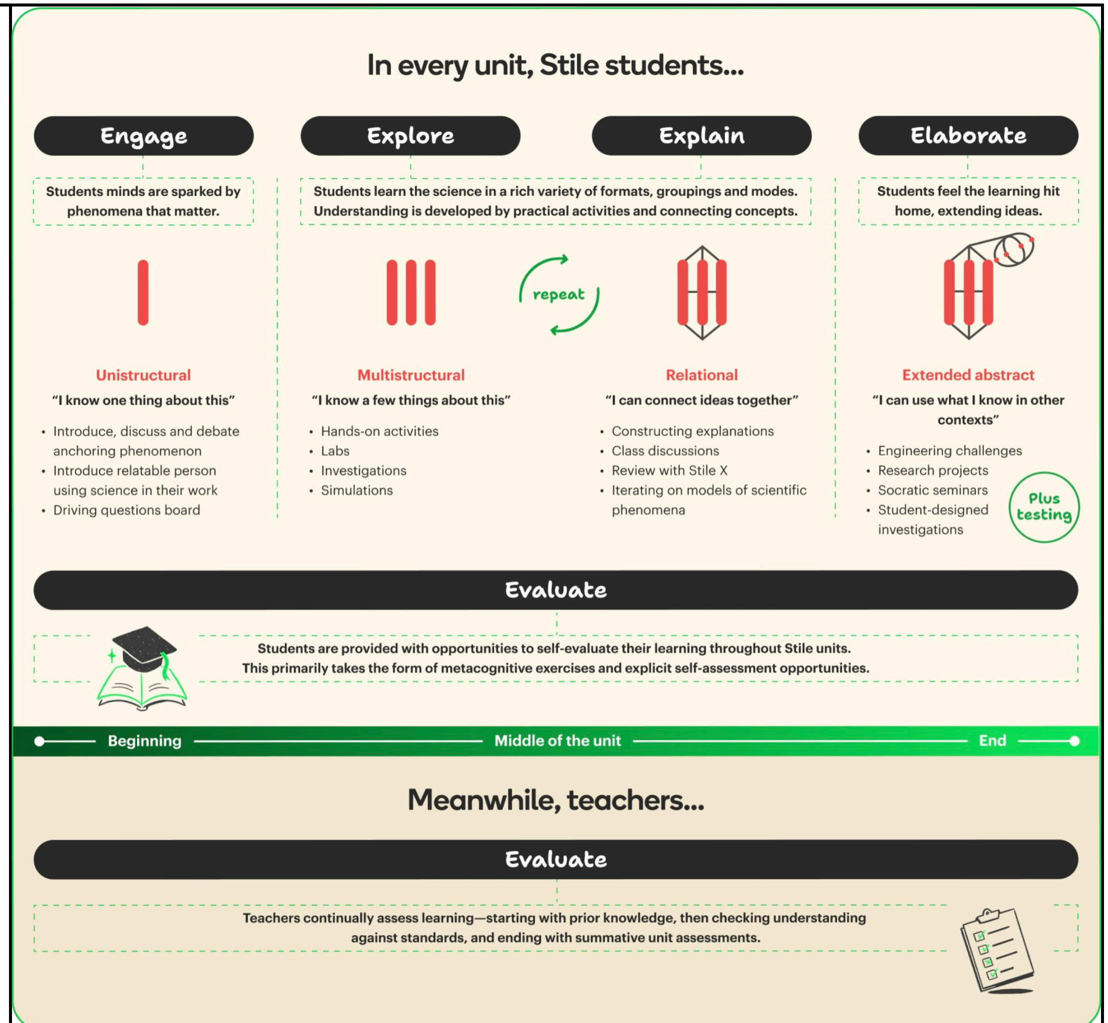
		 **Controlled session release: delivering different content to different students**. Once Analyze Mode data has identified which students need support and which are ready to extend, teachers can act on that information directly through selective session release. Remediation sessions, supplementary units such as the SEP skill-builder unit, or extension investigations can be assigned to specific students or groups without those sessions being visible to the rest of the class. Students who need to resubmit a response receive a notification with a due date, while students who are ready to move ahead can be assigned optional extension sessions. This means every student's content pathway through a unit is shaped by their actual performance, not a one-size-fits-all pacing assumption. **In-session scaffolding responds to individual need.** Within sessions, the question sequence itself is responsive by design. Sessions begin with lower-order foundational questions and build toward the Key Question, meaning students who need more processing time with foundational content receive it before being asked to demonstrate three-dimensional reasoning. Teachers can further personalize sessions before class by adding sentence starters, adjusting question types, inserting additional scaffolds, or editing model answers to create leveled exemplars for students who need a more structured reference. Challenge Questions, which sit beyond the learning goal, are available for students who move through core content quickly and are ready for deeper application. **Stile X smart flashcard quiz: personalized vocabulary practice driven by student performance.** The Stile X smart quiz at stileapp.com (example for Energy unit here) is an adaptive vocabulary tool that tracks which terms each individual student still needs to practice and prioritizes those in subsequent quiz rounds. Unlike a static flashcard set, the quiz learns from each student's responses, feeding them more questions on terms they are uncertain about and reducing repetition on terms they have already mastered. This creates a genuinely personalized retrieval practice experience for each

		student, grounded in their actual performance on the vocabulary of the unit's disciplinary core ideas rather than a fixed sequence. Students can also self-assess their depth of knowledge on each learning goal using the Check Your Understanding sections of the Stile X workbook, rating themselves as "Not yet," "I can do this," or "I can teach this!" after comparing their responses to model answers, which helps them identify where to direct their own study efforts. 
3f. Interactive materials are purposeful, directly related to learning, and designed to support engagement in content and practices.	Is the interactive material directly related to learning and intentionally supports student engagement with the three dimensions of science?	Stile's guiding philosophy is that technology should never be used for its own sake. Every interactive element in the curriculum exists because it serves a specific pedagogical purpose that could not be served as well, or at all, through static text. The corollary of this is that Stile is designed to make evidence-based teaching the path of least resistance: the platform is built around a body of research-backed pedagogies, and the interactive tools are the mechanisms through which those pedagogies come to life in every session. Stile's website explicitly outlines the foundational pedagogies of the curriculum and demonstrates examples of what they look like in Stile. **Built on evidence-based pedagogical foundations**. Stile's curriculum draws explicitly from a comprehensive set of evidence-based frameworks, each of which directly shapes how and why interactive content is used. The 5E Instructional Model structures every unit so that interactive content appears at the right phase: Live Polls and phenomenon videos Engage students and surface prior knowledge; simulations and hands-on investigations support Explore; interactive canvas questions and written response prompts support Explain; engineering challenges and novel-context problems support Elaborate; and formative and summative assessments Evaluate. A 2023 meta-analysis found the 5E model produced an effect size of 0.87 on student science achievement, equivalent to approximately two years of academic growth.



Beyond the 5Es, Stile draws from Phenomena-Based Learning, embedding interactive experiences in authentic real-world contexts so students engage with science as scientists do. Three-Dimensional Learning is built into the design of every session, with interactive tools chosen specifically to support SEP performance, DCI development, or CCC application rather than generic engagement. SOLO Taxonomy drives the question progression within sessions, with interactive question types moving students from lower-order recall through to three-dimensional, extended abstract thinking. Cognitive Load Theory informs how content is chunked and how interactive elements are sequenced, ensuring that new concepts are introduced with visual and interactive scaffolding before students are asked to construct written explanations. Universal Design for Learning is reflected in the multimodal nature of the interactive suite, so that students can engage through reading, listening, watching, drawing,

		dragging, recording audio, or writing depending on what is most accessible to them. Differentiated Instruction, Explicit Instruction, and Inquiry-Based Learning all inform specific choices about when to use direct interactive instruction versus open-ended exploration. See Stile's website for specific examples of how each pedagogy informs the design of instructional materials. **Simulations: making the invisible visible and the impossible possible.** Stile's library of over 200 interactive simulations is one of the clearest examples of technology doing something that no other format can. When students manipulate variables in the Wave Properties simulation to observe how changing frequency or amplitude affects wave behavior, they are engaging in the SEP of Constructing Explanations and Designing Solutions in a context that would require expensive equipment to replicate physically, and that would take far longer to set up and run. The bee ecosystem simulation in the Importance of Biodiversity unit lets students observe and predict how changes to biodiversity affect food security in real time, helping them develop the CCC of Cause and Effect before constructing written arguments about what should be done. The Natural Selection simulation in the biological changes over time unit allows students to observe patterns in population change across generations, connecting evidence to the DCI of natural selection in a way that no static diagram can replicate. In the Investigating Resonance session in the Waves unit, students use a simulation to adjust the physical properties of a stringed instrument and observe the effect on sound, directly supporting the SEP of Analyzing and Interpreting Data. Simulations in Stile are never decorative; each one is positioned at a specific point in the session sequence where the interactive experience is the most efficient path to the intended three-dimensional understanding. **Interactive canvas questions: assessment through doing, not just writing.** The interactive canvas widget allows students to draw force diagrams, annotate images, construct food webs using drag-and-drop organisms, label cell structures, place organisms on a phylogenetic tree, or map the stages of the rock cycle by moving and connecting illustrated components. These question types assess three-dimensional understanding through performance rather than recall, requiring students to construct scientific representations rather than reproduce definitions. A student who correctly builds a food web with arrows showing energy flow direction, then classifies each organism's trophic role, is demonstrating integrated three-dimensional understanding of LS2 disciplinary core ideas, the SEP of Developing and Using Models, and the CCC of Energy and Matter in a single interactive response. This low-stakes question scaffolds students towards mastery of more in-depth, hands-on modeling. **Live Polls and Live Brainstorms: every student voice, every time.** Research consistently shows that cold-calling and hand-raising systematically favor confident and verbally fluent students, while quieter students disengage. The Live Poll and Live Brainstorm widgets solve this by allowing all students to submit responses simultaneously and anonymously before any responses are revealed to the class. This is not a cosmetic feature; it is a deliberate implementation of equitable engagement principles. When a teacher poses the question "Have you ever experienced an earthquake?" at the start of the Active Earth unit as a Live Poll, they are activating cultural funds of knowledge and prior experience from every student in the room, not just the three who would have raised their hand. The data that populates the screen becomes the starting point for a class discussion grounded in the actual range of student experiences and prior conceptions. **Character conversations and narrative framing: engagement through story.** Stile sessions regularly use character conversation widgets, where illustrated scientists or student characters guide students through a phenomenon or problem. This is not decoration; it is a deliberate application of narrative engagement principles from Inquiry-Based Learning research, which shows that students engage more deeply with science when it is presented as a human story rather than a series of facts. A student who reads a character asking "To solve the problem of feeding an off-world colony, we'll

		need to learn more about plants and how they grow" has a motivation for learning about plant anatomy and cell structure that a content-first presentation cannot provide. **Thinking routines: interactive metacognition.** Over 300 Stile sessions close with a structured Visible Thinking routine delivered through an interactive widget. Routines such as See-Think-Wonder, I Used to Think/But Now I Think, Connect-Extend-Challenge, and Link-Extend-Question are not reflection for its own sake; they are interactive formative assessment tools that ask students to articulate their evolving three-dimensional understanding in a structured format. When a student completes an "I used to think/but now I think" routine after the Modeling Phases of the Moon session, they are demonstrating conceptual change, which is the most powerful indicator that the session's learning goals have been met.)
3g. Materials clearly demonstrate compliance with privacy and data security requirements, allowing teachers and administrators to easily verify alignment with federal laws (FERPA, COPPA) and Oklahoma's Student Data Accessibility, Transparency, and Accountability Act.	Is evidence of privacy and data security compliance clearly visible and accessible to educators?	Stile approaches privacy and data security as a foundational commitment, not a compliance checkbox. Evidence of that commitment is publicly documented, independently verified, and accessible to Oklahoma administrators, teachers, and parents. The following summarizes Stile's compliance posture across the key federal and state requirements. **FERPA and COPPA compliance.** Stile's data practices are designed to meet the requirements of both FERPA and COPPA. The platform collects only the minimum data necessary to deliver its educational services, does not use student data for advertising or commercial purposes, does not sell or share student data with third parties, and does not claim ownership over any data generated by students or teachers. Student names are optional and can be replaced with pseudonyms. Teacher or administrator authorization is required before any student account is created or any content is released to students. Stile is a signatory to the Student Privacy Pledge, a program run by the Future of Privacy Forum and the Software and Information Industry Association, which independently verifies compliance with a rigorous set of student data privacy commitments aligned with both FERPA and COPPA requirements. **Oklahoma Student DATA Act compliance.** Stile's data practices are designed to meet the requirements of Oklahoma's Student Data Accessibility, Transparency, and Accountability Act. Stile collects only data necessary for educational purposes, maintains clear documentation of what data is collected and how it is used, does not sell or share student data with third parties for non-educational purposes, supports data deletion requests, and provides transparent reporting on its data practices. Stile's complete data inventory, including every category of data collected and its purpose, is documented in the Security and Privacy Guide available to administrators on request. **Data collected.** Stile collects only the following categories of data: student names (optional, pseudonyms supported), student email addresses (optional), teacher names and emails, student work and assessment responses, teacher feedback and grades, usage metadata for platform functionality and security, and browser IP addresses and user agent strings for security audit purposes. No sensitive data such as health records, financial information, or behavioral classifications is collected. All data sharing between users, including class discussions and live brainstorms, requires explicit teacher opt-in and moderation. **Infrastructure and encryption.** All Stile production systems are hosted in isolated Amazon Web Services infrastructure. All data is encrypted in transit using TLS and encrypted at rest. Stile has never suffered a data breach. In the event of a breach, Stile's policy is to contain and mitigate within 24 hours of discovery and notify affected parties within seven days, in compliance with applicable breach notification laws. Stile will report breaches to all relevant US state Attorneys General and other applicable authorities. **Independent verification: SOC 2.** Stile is SOC 2 Type I compliant and is actively engaged in the

		process of achieving SOC 2 Type II certification. SOC 2 Type I verifies that Stile's security systems and processes are appropriately designed to meet the standard at a point in time. SOC 2 Type II, which Stile is currently pursuing with an auditor, goes further by verifying that those controls are consistently operating as designed over an extended period. The SOC 2 report is available to administrators on request. **Annual penetration testing.** At least once per year, Stile engages external security experts to conduct open-book penetration testing of its production systems, with full access to Stile's source code and architecture. Internal red team exercises are also conducted by Stile's own engineers. Since 2017, no exploitable vulnerability has been found in Stile's own systems through external testing. Stile also operates an Open Bug Bounty program offering up to AUD$50,000 to independent researchers who responsibly disclose vulnerabilities. **Human Rights Watch recognition.** A 2022 Human Rights Watch global review of 124 education technology companies found Stile to be one of only five companies that could be classified as "clean" and able to operate without privacy concerns. This independent recognition, reported by the ABC Australia, reflects Stile's long-standing commitment to student privacy that goes beyond minimum compliance requirements. **Staff access controls.** A strictly limited number of trained Stile staff have access to student data, only on an as-needed basis and only when explicitly authorized. All staff access is provisioned through minimum-privilege role-based access controls and is comprehensively and immutably logged, with regular audits. All Stile staff are required to hold a valid Working with Children check. **Accessibility of compliance documentation**. Stile's full Security and Privacy Guide is available to district administrators and IT leaders on request and covers every aspect of Stile's data practices, security architecture, third-party data processors, incident response procedures, and staff access controls in plain language. The SOC 2 audit report and most recent external penetration testing report are also available on request. Questions about security or privacy can be directed to security@stileeducation.com.
3h. Materials provide clear guidance for implementation and student use of embedded technology tools that are dependable, intuitive, and easily integrated into instruction.	Do the materials support both teacher and student use of embedded technology tools through clear, practical implementation guidance?	Stile is designed to be intuitive enough that a teacher can open a session and begin teaching with confidence on day one, while also providing a deep and layered support ecosystem for teachers who want to go further. Guidance for both teachers and students is embedded at every level of the curriculum, from the platform itself through to formal professional learning, and a dedicated human support team ensures that help is always available when it is needed. **Platform design: built so teachers don't need a manual.** The Stile interface is organized around the three-mode structure of Prepare, Teach, and Analyze, each of which corresponds directly to what a teacher needs at a specific point in the instructional cycle. The labels are intuitive, the tools appear where teachers expect them, and every feature that affects students requires a deliberate action rather than an accidental click. Student enrollment is similarly straightforward: students visit stileapp.com/join, enter a six-digit class code, and their names appear in the teacher's class list in real time. If Single Sign-On or rostering is configured through Clever, ClassLink, Google, or Microsoft, students log in with their existing school credentials and are automatically rostered with no additional steps required from teachers or students. This means that the first time a class opens Stile, the technology is not a barrier. **Print teacher resources: implementation support in hand before opening the platform.** Before teachers even log in, a suite of print and PDF resources gives them everything they need to understand the curriculum and plan for implementation. The Oklahoma Teacher Guide provides a year-level overview of the curriculum, scope and sequence, standards alignment, and pedagogical

		approach. Teaching plans (example here) provide unit-level planning resources including week-by-week session sequences, 3D learning progression grids, and session-by-session preparation notes. Lab Guides (example here) walk teachers through every hands-on activity with materials lists, step-by-step methods, photos, and tips from the Stile team's own testing. These resources are designed to give teachers a complete picture of the curriculum independent of the platform, so that planning and preparation can happen anywhere. **In-platform guidance: support at the point of need.** Every feature in Stile is accompanied by in-platform guidance. Teacher tips, contextual help links, and instructional overlays appear when teachers access features for the first time. Simulations include on-screen instructions for students within the session, and interactive canvas questions include prompts that tell students exactly what to do. Teacher Tips within sessions include not only pedagogical advice but also practical notes about how specific platform features are best used in the context of that specific activity, so teachers receive guidance that is contextually relevant rather than generic. **The Help Center: a self-service reference for teachers and students.** The Stile Help Center at help.stileapp.com is a searchable, comprehensive reference covering every platform feature in step-by-step detail, with screenshots and embedded videos. It is designed for both teachers and students; dedicated sections address how students log in, submit responses, use different question types, access Stile X resources, and review feedback. Articles are organized by workflow, so a teacher looking for guidance on grading can find Quick Review, AI feedback, Analyze Mode, and the Gradebook in a single section. The Help Center is accessible from within the platform via contextual links and is also referenced throughout the Oklahoma Teacher Guide and teaching plans where specific features are mentioned, ensuring guidance is never more than one click away. **The PL Hub: self-paced training built into the platform.** The Professional Learning Hub is accessible directly from the side navigation menu of every teacher's Stile account, making it part of the platform rather than an external resource. It contains self-paced training modules that walk teachers through every aspect of using Stile, from basic navigation and session setup through to advanced customization, differentiation strategies, and data-informed instruction. Modules are structured as short, practical tasks and teachers earn training badges on completion. The starting module, Getting Started, is designed to take a teacher from a fresh account to a fully set-up first unit in a single session. Additional modules include Planning for Effective Teaching, Strengthening Long-Term Retention, Teaching with Stile, Differentiating for Every Learner, Data Dynamo, Supporting Literacy Comprehension, Using Simulations to Deepen Science Learning, Running and Escape Room, and Using Assessment to Drive Learning each targeting a specific area of practice. **Stile Academy: ongoing professional learning with a coaching model.** Stile Academy is a structured, ongoing professional learning program accessible through the PL Hub that goes beyond platform training to develop evidence-based science teaching practice. Teachers work through a library of 12+ interactive modules of approximately five hours each, covering topics such as retrieval practice, spaced repetition, dual coding, metacognition, enhancing engagement, Driving Questions Boards, scaffolding with student talk, boosting participation, inclusive teaching practices, differentiation strategies, and whole-class reading techniques. Each module follows a six-week sprint cycle structure: learn about a research-based strategy, set a small practical teaching goal, implement it in the classroom, reflect on student impact, and evaluate next steps. Teachers can join Live Learning Labs with cohorts of other teachers and earn micro-credentials on completion. Stile Academy is designed to produce continuous, classroom-applicable growth rather than one-off professional development. **Live professional learning: getting teachers classroom-ready.** The Launch PD is a full-day, in-person workshop that transforms teachers into confident Stile practitioners. Participants plan their first

		unit using backward design, experience Stile from the student's perspective, practice customizing sessions for diverse learners, and master Stile's assessment and feedback tools. Subsequent professional learning includes the Collaborative Classroom, where a Stile educator models live sessions with students while the teacher observes and debriefs; and Teaching for Impact, a deep-dive workshop focused on using Stile's tools to promote student engagement, discourse, and inclusive science learning. Regular "What's New" vlogs keep teachers up to date on platform and content updates throughout the year. See more about implementing Stile in the Implementation Guide. **A dedicated support team: real people, responsive every time.** Every Oklahoma district using Stile is assigned a dedicated Partner Success Manager who serves as the primary relationship contact throughout implementation. The Partner Success Manager conducts scope and sequence consultations before school starts, runs bi-semester Data Dives to review student engagement and performance data, facilitates annual goal-setting meetings, and coordinates any additional professional learning or intervention needed. For day-to-day questions and troubleshooting, teachers can reach the Stile support team via a dedicated phone line (800-225-0248), which connects directly to a real team member, and via email at help@stileeducation.com for queries that need a written response. Fifteen-minute drop-in sessions with a member of Stile's teaching team can also be scheduled at any time for deeper instructional conversations. Technical support for setup, Single Sign-On configuration, and custom integrations is available 24/7 through Stile's IT team. **Student guidance: learning the platform through the curriculum.** Students do not need separate technology training before using Stile. The Introduction to Science unit, recommended as the first unit of the year for all grade levels, is specifically designed to orient students to the Stile platform while simultaneously teaching foundational science skills. Through this unit, students encounter and practice every major question type and interactive tool they will use across the year, in a low-stakes context before they are asked to use them for graded work. By the time students begin their first content unit, the technology is familiar and the cognitive load of learning both science and a new platform simultaneously is eliminated.

Criterion 3.2 Summary	Subtotal	Rating Levels	Rating
	_ / 8	**Exemplifies Quality:** 7-8 **Approaching Quality:** 5-6 **Not Represent Quality:** 0-4	

Gateway 3 Points Available	Rating Levels	Gateway 3 Points Achieved	Gateway 3 Rating
18	**Exemplifies Quality: 14 – 18**	_ / 18	
	Approaching Quality: 10 – 13		
	Does Not Represent Quality: 0 – 9		

Gateway 3 Comments

Gateway 4: Statutory and Regulatory Fidelity

High-quality instructional materials comply with Oklahoma statutory and regulatory requirements, including 70 O.S. §24-157 and OAC 720:10-5-3. Educators use evidence from the instructional materials to determine whether the materials meet these legal requirements.

Gateway 4 Overview	Guiding Question	Available Points
Criterion 4.1: Materials align with Oklahoma statute 70 O.S. § 24-157 Instructional materials do not teach or promote that any individual is inherently superior or inferior, morally defined, or responsible for the actions of others based on race or sex. Materials do not suggest that individuals should be discriminated against, feel guilt or distress, or that traits such as merit or work ethic are inherently racist or sexist.	Does the material comply with the statute?	Curriculum Associates is in full alignment with this statute.
Criterion 4.2: Materials align with Oklahoma Administrative Code 720:10-5-3 Instructional materials are factual, balanced, and objective, presenting content accurately without bias or partial interpretation. Materials do not promote civil disorder, illegal or immoral behavior, or disregard for authority; they respect high moral standards, the family unit, free enterprise principles, Western cultural and religious heritage, and the rights and privacy of students and families, while avoiding extraneous, offensive, or sensational content.	Does the material comply with the code?	Curriculum Associates is in full compliance with this code.