Course Description
Grades 3-5 Science
Streamlined TEKS
2021-22

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Grade 3

Scientific Investigation and Reasoning

Scientific Investigation and Reasoning - 3-5 1A, B; 2A, B, C, D, E; 3A, B, C

Science Concepts TEKS	*Grades 3-5 1A, B; 2A, B, C, D, E; 3A, B, C, D; 4A, B*
Instruction Module	**Safety and Scientific Processes:** In this Instruction Module, students learn how to successfully conduct safe, appropriate science investigations using scientific processes and that it is as important as the science content knowledge gained from the experience.
IM Companion	Safety and Scientific Processes
Interactivity/ Simulation	**Tess' Pulley Experiment:** In this simulation, students conduct a virtual experimental investigation to test a hypothesis that a pulley system with two pulleys will decrease the force required to lift a mass by half.
WordExplorer	Safety and Scientific Processes
Quiz	The questions in the assessment section test students' understanding of the following concepts: steps used while conducting scientific investigations, safety equipment, tools used for measuring physical quantities, and data and conclusions. The additional questions test students' ability to match quantitative data to graphical representations, identify dependent and independent variables, and identify patterns in data collected during experimentation.
Journals	Journal #1 – Safety and Scientific Processes Journal #2 – Steps in an Experiment
Activities	Collecting, Recording, and Analyzing Information Using Tools Evaluating the Accuracy of Advertisements for Products and Services - TEKS 3.2 B
Expository text passages/ activities	Evaluating Claims for Products and Services – TEKS: 3.1(A), (B); 3.2(A), (B), (C), (D), (E), (F); 3.3(C); 3.4 (A); 4.1(A), (B); 4.2(A), (B), (C), (D), (E), (F); 4.3 (C); 4.4 (A); 5.1(A), (B); 5.2(A), (B), (C), (D), (E),(F) 5.3 (B), (D); 5.4 (A) Microscopes – 5.1(A), (B), (D), (F); 5.2 (B); 5.3 (D); 5.4 (A); 5.7 (B).
Readers	**Science is Empirical:** An explanation about how scientists use their senses and tools to make observations which are the empirical evidence they can use to learn more about the natural world.

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	Science TEKS: 3.3(A), 3.4 **ELA TEKS:** 3.3(B), 3.6(A, F, G), 3.9(D)i, ii, iii, **Reading Levels:** 1
	Measurements: The importance of using standard units of measurement. **Science TEKS**: 3.2 (B) 4.2 (B) **ELA TEKS:** 4.6 (A,B,C) 4.9(D) i,ii,iii **Reading Levels:** 1

Matter and Energy 3.5

Unit 1: Observing Physical Properties - 3.5 A

Science Concepts TEKS : 3.5 A

Teacher Resources	Observing Physical Properties
Instruction Module	**Identifying Matter**: In this Instruction Module students are introduced to matter. They learn that matter is anything that has mass and takes up space. They also learn that characteristics or properties can be used to identify matter.
IM Companion	Identifying Matter
Instruction Module	**Understanding Mass:** In this Instruction Module students are introduced to mass, a physical property of matter. They learn that mass is the amount of matter in an object and can be measured using tools such as a pan balance or a triple beam balance. Students also learn that objects of different sizes may have the same mass.
IM Companion	Understanding Mass
Instruction Module	**Hot or Cold:** In this Instruction Module students are introduced to temperature. They learn that temperature is a physical property of matter. They also learn how a thermometer can be used to measure and compare the temperature of two objects.
IM Companion	Hot or Cold
Instruction Module	**Magnets:** In this Instruction Module students are introduced to magnetism, a physical property of matter. Students observe and recognize that magnets attract and exert a force on some objects while having no effect on other objects.
IM Companion	Magnets
Instruction Module	**Hardness of Matter:** In this Instruction Module students are introduced to hardness, a physical property of matter. Students learn how to use the scratch test to compare the hardness of objects made of different kinds of matter.

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IM Companion	Magnets
Instruction Module	**Float or Sink – Density:** In this Instruction Module students are introduced to density, a physical property of matter. Students learn how density can determine whether an object will float or sink in water.
IM Companion	Float or Sink – Density
Instruction Module	**Float and Sink – Buoyancy:** In this Instruction Module students are introduced to buoyancy, a physical property of matter. Students observe the relationship between the weight of the water displaced by an object and the buoyant force exerted by water. They learn that an object floats in water if its weight is less than the weight of the water it displaces.
IM Companion	Float or Sink – Buoyancy
Student Review	**Understanding Mass:** Students assess and review their understanding of the concept of mass using objects of different sizes.
Student Review	**Temperature:** Students assess and review their understanding of the concept of temperature and its measurement using a thermometer.
Student Review	**Magnetic Property of Matter:** Students assess and review their understanding of the concept of magnetism by testing it on different types of objects.
Student Review	**Float or Sink:** Students assess and review their understanding of the concept of density and how it is used to explain why an object floats or sinks in water.
Interactivity/ Simulation	**Physical Properties Interactivity**: In the interactive section of the module, students first identify the tools or measuring devices used to measure temperature and mass. Then, they read the temperature or compare masses. **Matter and Mass Simulation**: In this Simulation, students conduct an experiment to determine the mass of various cubes that have the same volume but are made of different materials.
WordExplorer	Observing Physical Properties
Quiz	The questions in the assessment section test students' understanding of the following concepts: tools used to measure physical properties, materials that are attracted to magnets, hardness of materials, reading thermometers, and relative masses. The additional questions test students' understanding of density and buoyancy.
Journals	Journal #1 – TEKS 3.5A Journal #2 – TEKS 3.5A

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Activities	Observing Physical Properties: Sink or Float – TEKS 3.1A, B; 3.2A, B, C, D, F; 3.4A; 3.5A Measuring Water Temperature (Experimental Investigation) – TEKS 3.1A, B; 3.2A, B, C, D, F; 3.4A; 3.5A
STAARSmart Tests	Unit Test: 3.5 (A) - Observing Physical Properties

Unit 2: States of Matter - 3.5 B, C

Science Concepts TEKS: 3.5 B, C

Teacher Resources	States of Matter
Instruction Module	**Matter:** In this Instruction Module students learn that matter is anything that has mass and takes up space. They learn how a pan balance can be used to compare and measure mass. They also learn how to measure the volume of matter, including how to use a graduated cylinder to measure the volume of irregularly shaped objects.
IM Companion	Matter
Instruction Module	**Solids, Liquids, and Gases:** In this Instruction Module students are introduced to the three states of matter: solids, liquids, and gases. They compare how the physical properties of shape and volume define each state of matter. They also learn that differences in state are a result of differences in the arrangement of particles within solids, liquids and gases.
IM Companion	Solids, Liquids, and Gases
Instruction Module	**Changing States of Water:** In this Instruction Module students observe changes in the state of matter. They learn how adding or removing heat affects the particles that make up water and results in a change of state.
IM Companion	Changing States of Water
Student Review	**Solids, Liquids, and Gases:** Students assess and review their understanding of the physical properties of solids, liquids, and gases, such as shape and volume. They also review how the arrangements of particles of matter determine their states.
Student Review	**Changing States of Water:** Students assess and review their understanding of how the addition and removal of heat affect the particles of matter and its state, using water as an example.

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Interactivity/ Simulation	**Matter Sorter**: In the interactive section of the module, students identify and classify given materials as solids, liquids, or gases, based on their physical properties.
WordExplorer	States of Matter
Quiz	The questions in the assessment section test students' understanding of the following concepts: properties of solids, liquids, and gases, and the arrangement of particles of matter in each of them. The additional questions test students' ability to recognize the properties of solids, liquids, and gases, the tools used to measure mass and volume, and the processes of melting, freezing, and evaporation.
Journals	Journal #1 – TEKS 3.5B Journal #2 – TEKS 3.2F; 3.5C
Activities	States of Matter Chart and Venn Diagram – TEKS 3.2B, C, D; 3.5B Matter and Energy: Dissolving a Sugar Cube – TEKS 3.1A, B; 3.2A, B, C, D, F; 3.4A; 3.5C
Readers	**Foggy Day:** An introduction to the processes of condensation and evaporation, and their roles in the formation of dew, fog, and the water cycle. **Science TEKS**: 3.5(C), 3.3(B)**ELA TEKS:** 3.6(I), 3.7(D), 3.8(A,B) **Reading Levels:** 3
	A Bridge of Ice: The changing of liquid water to solid ice of a lake makes all the difference between survival and scarcity for a town in Canada. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)iii (2019) **Reading Levels:** 1
	Water in its Various Forms: Water's unique property of existing in all three states of matter, with some examples. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)iii (2019) **Reading Levels:** 1
	Changes in Matter: An explanation of changes of state in matter as seen in simple examples, such as making of popcorn and melting of ice cream. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.9(D)iii 3.13(C) **Reading Levels: 2**
	Water in its Various States: A look at the physical properties of the different states of matter using water's various forms as example. **Science TEKS**: 3.5(B) **ELA TEKS:** 3.13(A), 3.6(G)(2019) **Reading Levels: 2**

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	Water and the Three States of Matter: A study of the three states of matter in context of water occurring in nature, and the phenomena of evaporation and condensation. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)(i) (2019) **Reading Levels: 2**
STAARSmart Tests	Unit Test: 3.5 (B) (C) - States of Matter

Unit 3: Mixtures - 3.5 D

Science Concepts TEKS : 3.5 D

Teacher Resources	Mixtures
Instruction Module	**What is a Mixture?** In this Instruction Module, students are introduced to mixtures. Students observe various examples of mixtures and recognize that a mixture is made of two or more substances that are physically combined. They learn that the components of a mixture retain most of their physical properties and no new substance is formed.
IM Companion	Mixtures
Instruction Module	**Separating Mixtures:** In this Instruction Module, students observe how mixtures can be separated based on the physical properties of the substances that make up the mixtures. Students are also introduced some of the tools used to separate mixtures.
IM Companion	Separating Mixtures
Student Review	**What is a Mixture?:** Students assess and review their understanding of how a mixture is formed when two or more substances are physically combined.
Interactivity/ Simulation	**In The Mix!**: In the interactive section of the module, students identify mixtures and sort given materials into two groups - “mixture” and “not a mixture” (pure substances).
WordExplorer	Mixtures
Quiz	The questions in the assessment section test students’ understanding of the following concepts: mixtures and pure substances, and tools and techniques used to separate mixtures based on the physical properties of the ingredients. The additional questions test students’ ability to identify the properties of the ingredients in a mixture and suggest the most suitable tools and techniques to separate them.

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Journals	Journal #1 – TEKS 3.2F; 3.5D Journal #2 – TEKS 3.2A, B, F; 3.5D
STAARSmart Tests	Unit Tests: 3.5 (D) - Mixtures

Force, motion, and energy 3.6

Unit 1: Energy - 3.6 A

Science Concepts TEKS : 3.6 A

Teacher Resources	Energy
Instruction Module	**What is Energy?**: In this Instruction Module, students are introduced to energy. They observe examples where energy is used and begin to gain an understanding of the meaning of energy. They also learn that energy exists in different forms.
IM Companion	What is Energy?
Instruction Module	**Energy Forms – Light and Thermal:** In this Instruction Module, students are introduced to thermal and light as forms of energy. They learn that light energy helps us see and helps plants make food. They observe what can happen to light as it passes through objects. In addition, they learn that heat or thermal energy warms things up and can cause matter to change states.
IM Companion	Energy Forms – Light and Thermal
Instruction Module	**Energy of Moving Objects:** In this Instruction Module, students are introduced to mechanical energy. Through various examples, students infer that moving objects have mechanical energy. They also recognize that objects can have stored mechanical energy because of their position.
IM Companion	Energy of Moving Objects
Instruction Module	**What is Sound?:** In this Instruction Module, students are introduced to sound. Students learn how sound energy is produced, how it travels, and how our ears help us to hear sound. They also discover that sound can travel through solids, liquids, and gases but cannot travel though space.
IM Companion	What is Sound?

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Student Review	**Energy Forms – Light and Thermal:** Students assess and review their understanding of the properties and some uses of thermal and light energy.
Student Review	**Energy of Moving Objects:** Students assess and review their understanding of properties and some uses of mechanical energy.
Student Review	**What is Sound?:** Students assess and review their understanding of properties and some uses of sound energy.
Interactivity/ Simulation	**Jamie In The Maze**: In the interactive section of the module, students identify the correct form of energy that they need to use to perform a task, as they move through a maze.
WordExplorer	Energy
Quiz	The questions in the assessment section test students' understanding of the following concepts: the Sun as the main source of energy on Earth, and the different forms of energy used for different purposes. The additional questions test students' ability to identify the different forms of energy used for different purposes and recognize the importance of the energy from the Sun to life on Earth.
Journals	Journal #1 – TEKS 3.6A Journal #2 – TEKS 3.6A
Activities	Energy: Observing Sound (Descriptive Investigation) – TEKS 3.1A, B; 3.2A, B, C, D, F; 3.4A; 3.6A Sound Energy: Make a Speaker Activity – TEKS 3.1A, B; 3.2 B, F; 3.4A; 3.6A
Readers	**Heat and Light:** A canyon hike is used to introduce students to light and heat as forms of energy that we receive from the Sun and other sources like the light bulb. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)(i) (2019) **Reading Levels: 2**
	Earth's Energy Budget : Using the analogy of adobe walls, the text describes Earth's energy budget, the process by which Earth absorbs heat through its atmosphere during day and releases it back out into space at night. **Science TEKS**: 3.6 (A), 3.8 (B) **ELA TEKS:** 3.3 (B), 3.6 (A,B,C) (2019) **Reading Levels: 1**
	Pushes and Pulls: An introduction to energy, force, and motion through examples where pushes and pulls are used to move small and large objects. **Science TEKS**: 3.6(A), 3.6(B) **ELA TEKS:** 3.6(G), 3.9(D) **Reading Levels: 1**

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	Listening for Whales: Using the parallel examples of whale sounds and SONAR, the text explains how sound is produced and how it can travel through air and water. **Science TEKS**: 3.6(A) **ELA TEKS:** 3.13(C), 3.9(D)iii (2019) **Reading Levels: 1**
	A day at the Beach: Jessie's day at the beach and her observations about the Sun, wind, and water. **Science TEKS**: 3.6(A), 3.8(B) **ELA TEKS:** 3.9, 3.9(D) (2019) **Reading Levels: 3**
	Forms of Energy: A second person narrative of the different forms of energy experienced on a typical school day. **Science TEKS**: 3.6(A), **ELA TEKS:** 3.13 (A);3.6 (G) **Reading Levels: 3**
STAARSmart Tests	Unit Test: 3.6 (A) - Energy

Unit 2: Force. - 3.6 B, C

Science Concepts TEKS: 3.6 B, C

Teacher Resources	Force
Instruction Module	**Force:** In this Instruction Module, students are introduced to force as a push or pull. Students observe how force can make an object at rest move, bring a moving object to rest, and change the direction an object is moving.
IM Companion	Force
Instruction Module	**Gravity and Magnetic Force:** In this Instruction Module, students are introduced to gravitational and magnetic forces. They compare and contrast the two forces, learning that gravitational force pulls on all objects while magnetic force only pulls on certain materials. They also learn that magnets can exert a pushing force on other magnets.
IM Companion	Gravity and Magnetic Force
Student Review	**Force:** Students assess and review their understanding of how pushes and pulls change the position and motion of objects in relation to work, such as in a pulley.
Student Review	**Gravity and Magnetic Force:** Students assess and review their understanding of the effects of magnetism and gravity on objects and the differences between them.
Simulation	**Force and Distance:** In this Simulation, students conduct an experiment to investigate the motion and positions of four carts

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	filled with different loads and then infer which cart has the greatest mass.
WordExplorer	Force
Quiz	The questions in the assessment section test students' understanding of the following concepts: pushes and pulls, changes in position and motion, effects of force, direction of gravity, identification of forces that cause changes in an objects position or motion, and the similarities between gravity and magnetism.
Journals	Journal #1 – TEKS 3.2B; 3.6B Journal #2 – TEKS 3.2B; 3.6B
Activities	Force STEM Activity – TEKS 3.2A, B, D, F; 3.4A; 3.6B Force – Push or Pull? – TEKS 3.2C; 3.6B, C
Readers	**Force, Motion and Baseball:** Using examples from a baseball game, the text explains how forces can cause motion, change the direction of motion, and stop motion. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6 (G), 3.7(C), 3.9 (D) i,ii,iii, 3.10 (B) **Reading Levels: 3**
	Gravity on the Road: A drive through the mountains explains how a motor vehicle's engine applies force to overcome gravity on the way up the hill, and how the force of friction is used to slow down on the way down. **Science TEKS**: 3.6 (C), **ELA TEKS:** 3.6 (A), 3.7(A,G) **Reading Levels: 3**
	Invisible forces-Pushes and Pulls: A comparison of the forces of push and pull with gravity and magnetism as examples for each. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6(E) , 3.7(C) 3.9(D)i **Reading Levels: 3**
	Gravity: What is gravity, how it is useful to us, and what it would be like without gravity. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6(F, G, H), 3.9(D)ii **Reading Levels: 3**
	Magnets: The properties of magnets and how they used. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6(H); 3.7(D); 3.9(D)i,ii,iii; 3.10(C **Reading Levels: 3**
	Pushes and Pulls – Changes in Motion: Examples of pushes and pulls in everyday life, and how much force is used in some actions. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.3(B); 3.6 (E), (F), (G) **Reading Levels: 3**

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	Pushes and Pulls: An introduction to energy, force, and motion through examples where pushes and pulls are used to move small and large objects. **Science TEKS**: 3.6(A), 3.6(B) **ELA TEKS:** 3.6(G), 3.9(D) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 3.6 (B) (C) - Force

Earth and space 3.7

Unit 1: Soil Formation - 3.7 A

Science Concepts TEKS : 3.7 A	
Teacher resources	Soil Formation
Instruction Module	**What is soil made of?**: In this Instruction Module, students learn that soil is made up of sand, silt, clay and the remains of plants and animals called humus. They also understand that different soil types contain varying amounts of sand, silt and clay.
IM Companion	What is soil made of?
Instruction Module	**How is Soil Formed?:** In this Instruction Module students are introduced to the processes that result in the formation of soil. Students learn that soil is formed as a result of weathering of rock. They observe and recognize how differences in temperature and the forces of air, water, and ice can cause weathering.
IM Companion	How is Soil Formed?
Student Review	**How is Soil Formed?:** Students assess and review their understanding of the processes of weathering or rock and decomposition of plant and animal matter that result in the formation of soil.
WordExplorer	Soil Formation
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: formation of soil, the different components of soil, and the physical properties of soil including color, texture, and particle size.
Journals	Journal #1 – TEKS 3.2B, F; 3.3B; 3.7A Journal #2 – TEKS 3.2B, D, F; 3.7A

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Readers	**Erosion – Soil on the Move:** The text brings out the importance of soil as a natural resource that needs to be protected. It explains how soil is created by a slow process called weathering and how certain events or human activities can impact erosion. **Science TEKS**: 4.7(B), 3.7(A) **ELA TEKS:** 4.6(A), 4.9(D)i **Reading Levels: 1**
	Rocks and Soil: The definition, types, and examples of rocks and soil, and their differences. **Science TEKS**: 3.7(A), 3.9(A) **ELA TEKS:** 3.13(A), 3.6 (G)(2019) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 3.7 (A) - Soil Formation

Unit 2: Earth's Ever-changing Surface - 3.7 B

Science Concepts TEKS : 3.7 B	
Teacher resources	Earth's Ever – Changing Surface
Instruction Module	Tectonic Plates and Earthquakes: In this Instruction Module, students are introduced to earthquakes, what causes them to occur, and how they can change Earth's surface rapidly. They learn about the different types of faults caused by earthquakes. They also recognize that earthquakes can occur on land and underwater.
IM Companion	Tectonic Plates and Earthquakes
Instruction Module	**Volcanic Eruptions:** In this Instruction Module, students learn how volcanic eruptions can quickly change Earth's surface. They learn the difference between magma and lava, and recognize some of the positive and negative effects of volcanic eruptions.
IM Companion	Volcanic Eruptions
Instruction Module	**Glaciers – A Natural Force:** In this Instruction Module, students learn what a glacier is and how a glacier's movement affects the shape of Earth's surface.
IM Companion	Glaciers – A Natural Force
Student Review	**Tectonic Plates and Earthquakes:** Students assess and review their understanding of the different types of earthquakes and how they change Earth's surface on land and underwater.

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Student Review	**Volcanic Eruptions:** Students assess and review their understanding of what happens during a volcanic eruption and how volcanoes affect Earth's surface, both positively and negatively.
Interactivity/ Simulation	**Earth's Ever-Changing Surface**: In the interactive section of this module, students are presented with "before" and "after" pictures of landforms changed by earthquakes, volcanoes, and glaciers. The students identify the natural forces that changed them. **How Volcanoes Change Earth's Surface**: In this Simulation, students conduct an experiment to investigate how the type of magma affects what kind of volcano will form.
WordExplorer	Earth's Ever-Changing Surface
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: the various natural forces that change the surface of the Earth and the features that they form, including earthquakes, landslides, avalanches, and tsunamis.
Journals	Journal #1 – TEKS 3.7B Journal #2 – TEKS 3.7B
Activities	Earth's Changing Surface: Changes that Occur Quickly – TEKS 3.2B, D, F; 3.7B
Readers	**Tsunami:** A brief introduction to tsunamis and the damage they can cause. **Science TEKS**: 3.7 (B)**ELA TEKS:** 3.12, 3.9 (D) **Reading Levels: 3**
STAARSmart Tests	Unit Test: 3.7 (B) - Earth's Ever-changing Surface

Unit 4: Earth's Natural Resources - 3.7 C

Science Concepts TEKS : 3.7 C	
Teacher Resources	Earth's Natural Resources
Instruction Module	**Conserving Earth's Resources**: In this Instruction Module, students are introduced to some of Earth's natural resources. They learn how these resources can be conserved by reducing, reusing, and recycling products.
IM Companion	Conserving Earth's Resources
Student Review	**Using And Conserving Resources:** Students assess and review their understanding of the usefulness of natural resources and how to conserve them.

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Interactivity/ Simulation	**Identify the Resources**: In the interactive section of this module, students identify the different natural resources that are used in order to make a boot.
WordExplorer	Earth's Natural Resources
Quiz	The questions in the assessment test students' understanding of the following concepts: renewable and nonrenewable resources, resources that can be recycled and reused, and different ways to conserve resources. The additional questions tests students' ability to identify renewable and nonrenewable resources, and recognize ways of conserving resources.
Journals	Journal #1 – TEKS 3.2B, F; 3.7C Journal #2 – TEKS 3.2 F; 3.7C
STAARSmart Tests	Unit Test 3.7 © – Earth's Natural Resources

Earth and space 3.8

Unit 1: Weather – 3.8 A

Science Concepts TEKS : 3.8 A

Teacher Resources	Weather
Instruction Module	**What is Weather?**: In this Instruction Module, students are introduced to weather. They learn what weather is and how it affects their daily lives. Students also learn that the Sun warms the surface of Earth and the air above it, which can cause the weather to change.
IM Companion	What is Weather
Instruction Module	**Air Temperature:** In this Instruction Module, students are introduced to air temperature. They also learn how a thermometer is used to measure air temperature.
IM Companion	Air Temperature

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Instruction Module	**Wind:** In this Instruction Module, students are introduced to wind. They learn that temperature differences cause wind. They observe how a wind sock can be used to find out the direction from which the wind blows. They also learn how wind speeds can be described as calm, light, moderate, or strong.
IM Companion	Wind
Instruction Module	**Precipitation**: In this Instruction Module, students learn about the different forms of precipitation such as rain, hail, sleet, and snow. They observe how tools such as a rain gauge and snow gauge help to measure the amount of precipitation in an area. They also learn how too much or too little precipitation can lead to floods or droughts.
IM Companion	Precipitation
Instruction Module	**Patterns in Weather:** In this Instruction Module, students learn that meteorologists use information from satellite images and data collected over time to study weather patterns and predict weather conditions.
IM Companion	Patterns in Weather
Student Review	**What is Weather?:** Students assess and review their understanding of the concept of weather, its causes, and effects on daily activities.
Student Review	**Air Temperature:** Students assess and review their understanding of air temperature and its measurement.
Student Review	**Wind:** Students assess and review their understanding of how wind, rain, snow, and sleet are formed and the tools used for the measurement of wind and rain.
Interactivity/ Simulation	**Watch Out for the Weather!** In the interactive section of this module, students observe and record weather conditions such as temperature, precipitation, and wind speeds for three different cities.
WordExplorer	Weather
Quiz	The questions in the assessment section and the additional questions test students' understanding of the following concepts: thermometers and temperature, precipitation, weather patterns, changes in weather, tools and equipment used to measure weather conditions, weather information using charts and tables.
Journals	Journal #1 – TEKS 3.8A Journal #2 – TEKS 3.8A
Activities	Measuring the Weather – TEKS 3.1 B; 3.2C, E, F; 3.3 A, C; 3.4A; 3.8A

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	Constructing a Weather Map of My City – TEKS 3.2B, C, D, F; 3.4A; 3.8A
Expository text passage/ activities	Weather: Measuring the Wind: TEKS 3.1A, B; 3.2B, C, D, F; 3.3C; 3.4 A; 3.8 A
Readers	**Changing Weather:** An insight into how and why weather can change quickly. **Science TEKS:** 3.3(C), 3.8(A) ELA TEKS: 3.13(B), 3.6(F)(2019) **Reading Levels:** 1
STAARSmart Tests	Unit Test: 3.8 (A) - Weather

Unit 2: Earth, Moon, and Sun - 3.8 B, C

Science Concepts TEKS : 3.8 B, C	
Teacher Resources	Earth, Moon, and Sun
Instruction Module	**The Sun—Our Star**: In this Instruction Module, students are introduced to the Sun as the largest object in our solar system. Students learn that the Sun is a star and is made of up mostly of hydrogen and helium. They compare the relative sizes of the Sun, Earth, and the Moon and understand that the Sun appears to be the same size as the Moon because it is much farther away from Earth than the Moon.
IM Companion	The Sun—Our Star
Instruction Module	**The Physical Sun:** In this Instruction Module, students are introduced to some of the Sun's features such as the corona, the photosphere, and sunspots. Students understand that the Sun is the main source of energy on Earth, providing light and thermal energy.
IM Companion	The Physical Sun
Instruction Module	**Orbits and Rotation**: In this Instruction Module, students learn that Earth rotates on its axis, causing the day and night cycle. They also understand that the Sun's gravitational pull holds Earth and the other planets in their orbits around the Sun.
IM Companion	Orbits and Rotation

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Instruction Module	**The Moon:** In this Instruction Module, students learn that the Moon rotates on its axis and orbits Earth. They also learn that the Moon appears to change shape because of its position in relation to the Sun and Earth.
IM Companion	The Moon
Student Review	**The Sun—Our Star:** Students assess and review their understanding of the Sun as a star and its role in the water cycle on Earth.
Student Review	**Orbits and Rotation:** Students assess and review their understanding of Earth's rotation, the Moon's phases, and the orbital positions of Earth and the Moon from the Sun.
Interactivity/ Simulation	**Orbiting Spheres!**: In the interactive section of this module, students "place" the Sun, the Moon, and Earth in their correct orbital positions in the solar system. Then, they identify the correct object based on the characteristics of the Sun, the Moon, and Earth.
WordExplorer	Earth, Moon, and Sun
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: the physical characteristics of the Sun, orbits and rotations of the Earth and the Moon, and characteristics features of the Moon.
Journals	Journal #1 – TEKS 3.2D, F; 3.8B Journal #2 – TEKS 3.8B
Activities	The Sun, Earth and Moon as a System – TEKS 3.1A, B; 3.2 A, B, C, D, F; 3.3 A, B, C; 3.4A; 3.8C
Readers	**Heat and Light:** A canyon hike is used to introduce students to light and heat as forms of energy that we receive from the Sun and other sources like the light bulb. **Science TEKS:** 3.6(A), 3.8(B) ELA TEKS: 3.6(A);3.7(A,G) **Reading Levels:** 1
	Earth's Energy Budget : Using the analogy of adobe walls, the text describes Earth's energy budget, the process by which Earth absorbs heat through its atmosphere during day and releases it back out into space at night. **Science TEKS**: 3.6 (A), 3.8 (B) **ELA TEKS:** 3.3 (B), 3.6 (A,B,C) (2019) **Reading Levels: 1**
	Constellation: A canyon hike is used to introduce students to light and heat as forms of energy that we receive from the Sun and other sources like the light bulb. **Science TEKS:** 3.8(B) ELA TEKS: 3.13(A) ; 3.6(G) **Reading Levels:** 1

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	Telescope - One Very Large Telescope: A description of the Very Large Telescope (VLT) at Cerro Parana in the middle of Atacama Desert in Northern Chile, and why scientists studying the sky want to come here. **Science TEKS:** 3.8(B), 3.3(C) ELA TEKS: 3.6(F), 3.7(E, F) **Reading Levels:** 1
STAARSmart Tests	3.8 (B) (C) - Earth, Moon, and Sun

Unit 3: The Solar System - 3.8 D

Science Concepts TEKS : 3.8 D

Teacher Resources	The Solar System
Instruction Module	**The Planets**: In this Instruction Module, students are introduced to the eight planets of our solar system—Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Students are encouraged to use mnemonics to help recall all the names of the planets.
IM Companion	The Planets
Instruction Module	**Inner Planets:** In this Instruction Module, students learn about the inner planets - Mercury, Venus, Earth, and Mars. They compare and contrast the planet's distinctive features, such as nature of surface, atmosphere, size, and position in relation to the Sun.
IM Companion	Inner Planets
Instruction Module	**Outer Planets**: In this Instruction Module, students learn about the outer planets - Jupiter, Saturn, Uranus, and Neptune. They compare and contrast the planet's distinctive features, such as size, atmosphere, rings, and position in relation to the Sun. Students also learn that the asteroid belt separates the inner planets from the outer planets and understand why Pluto is no longer considered a planet.
IM Companion	Outer Planets
Instruction Module	**The Sun:** In this Instruction Module, students are introduced to the Sun as the object in the center of our solar system. Students learn about the composition of the Sun, its different layers, and the process of fusion that makes the Sun the main source of energy on Earth. Students are also introduced to sunspots.
IM Companion	The Sun

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Student Review	**Planets in Our Solar System:** Students assess and review their understanding of the distinctive features of the planets in the solar system and their positions in relation to the Sun.
Interactivity/ Simulation	**The Solar System!**: In the Solar System interactivity, students identify the planets in our solar system and match them with their names.
WordExplorer	The Solar System
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: planets and their positions in relation to the Sun, and the characteristics of the Sun.
Journals	Journal #1 – TEKS 3.8D Journal #2 – TEKS 3.8D
Activities	The Solar System: Order of the Planets – TEKS : 3.2B, D, F; 3.8D The Solar System – Planet Identification – TEKS 3.2C, D, F; 3.8D
STAARSmart Tests	3.8 (D) - The Solar System

Organisms and environments 3.9

Unit 1: Habitats and Organisms - 3.9 A

Science Concepts TEKS : 3.9 A

Teacher Resources	Habitats and Organisms
Instruction Module	**Components of an Ecosystem**: In this Instruction Module, students learn that an ecosystem is made up of all the living and nonliving components that interact with one another in a particular area.
IM Companion	Components of an Ecosystem
Instruction Module	**Population and Habitat:** In this Instruction Module, students examine a pond environment to learn about populations and habitats.
IM Companion	Population and Habitat

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Instruction Module	**Basic Needs of Organisms**: In this Instruction Module, students are introduced to the basic needs plants and animals must meet in order to survive. They learn basic needs are best met in an organism's habitat. They also understand why the natural habitat of one organism may be unsuitable for an organism from a different habitat.
IM Companion	Basic Needs of Organisms
Instruction Module	**Competing for Habitat Resources:** In this Instruction Module, students study a pond habitat to understand that organisms compete with each other to fulfill their basic needs. They also learn how overpopulation in a habitat impacts the resources available and ultimately causes changes in the habitat.
IM Companion	Competing for Habitat Resources
Student Review	**Population and Habitat:** Students assess and review their understanding of how the physical characteristics of an environment support populations and communities within its ecosystem.
Interactivity/ Simulation	**Pond Dwellers:** In the interactive section of this module, students apply their understanding of the type of organisms that make up a pond community to identify which organisms belong to a pond ecosystem and which ones do not.
WordExplorer	Habitats and Organisms
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: organisms found in different ecosystems, basic needs of organisms, populations, and communities, components of an ecosystem, and interactions between organisms in an ecosystem.
Journals	Journal #1 – TEKS 3.2B, F; 3.9A Journal #2 – TEKS 3.2F; 3.9A
Activities	Habitats and Organisms – TEKS 3.2B, F; 3.9A Observing Organisms in a Water Sample Using a Microscope- TEKS 3.1A, B; 3.2B; 3.4A; 3.9A Organisms and Their Environments – TEKS 3.1 B; 3.2 B, C, D, F; 3.3B, C; 3.9 A
Expository text passage/ activities	The Brown Tree Snake TEKS 3.1A, B; 3.2 A, B, F; 3.4 A; 3.9 A Animals Need Homes TEKS: 3.1 A, B, C; 3.2 A; 3.3 A; 3.4 A; 3.9 A, B, C
Readers	**Coral Reefs and Ocean Diversity:** An explanation of how coral reefs provide food and shelter to other creatures, protect the shoreline, and provide economic benefits. It highlights the importance of protecting the coral reefs. **Science TEKS:** 3.9(A), 7.10(A), 8.11 (C), **ELA TEKS:** 3.9(D)i, ii, iii,

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	3.10(A, B, C) **Reading Levels**: 1
	Rocks and Soil: The definition, types, and examples of rocks and soil, and their differences. **Science TEKS**: 3.7(A), 3.9(A) **ELA TEKS:** 3.13(A), 3.6 (G)(2019) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 3.9 (A) - Habitats and Organisms

Unit 2: Food Chains - 3.9 B

Science Concepts TEKS : 3.9 B	
Teacher Resources	Food Chains
Instruction Module	**Food Chains and Food Webs**: In this Instruction Module, students are introduced to how energy flows through ecosystems in food chains and food webs. They learn that the Sun is the ultimate source of energy on Earth and that plants use the Sun's energy to produce their own food. They learn that animals can indirectly get the Sun's energy by eating organisms that eat plants. Students also recognize factors that can disrupt the energy flow in ecosystems and evaluate the impacts of these disruptions.
IM Companion	Food Chains and Food Webs
Instruction Module	**Types of Consumers:** In this Instruction Module, students learn consumers are organisms that depend on other organisms for food. Students also learn that consumers are classified as herbivores, carnivores, omnivores, scavengers, or decomposers based on what the consumers eat.
IM Companion	Food Chains and Food Webs
Student Review	**Changes in a Food Chain:** Students assess and review their understanding of the flow of energy in food chain and how changes in a food chain affect an ecosystem.
Interactivity/ Simulation	**Build a Food Chain:** In the interactive section of this module, students apply their understanding of food chains. They arrange organisms in the correct order of who eats what and also identify which organisms are producers, herbivores, carnivores, omnivores and decomposers.
WordExplorer	Food Chains

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Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: components of food chains and food webs, impacts of adding to or removing organisms from ecosystems, and types of organisms in food chains and food webs.
Journals	Journal #1 – TEKS 3.2 B, C, D, F; 3.9B Journal #2 – TEKS 3.2 B, C, D, F; 3.9B
STAARSmart Tests	Unit Test: 3.9 (B) - Food Chains

Unit 3: Environmental Changes – 3.9 C

Science Concepts TEKS : 3.9 C	
Teacher Resources	Environmental Changes
Instruction Module	**Organisms Changing their Environment**: In this Instruction Module, students observe and learn how organisms like beavers change their environment. They also understand how these changes affect other organisms living in the same environment.
IM Companion	Organisms Changing their Environment
Instruction Module	**Factors Affecting an Environment:** In this Instruction Module, students examine how natural changes to the environment, such as droughts and forest fires, affect an ecosystem. They also learn how some human activities impact the environment. They observe examples and evaluate the positive and negative impacts of such changes.
IM Companion	Factors Affecting an Environment
Student Review	**Organisms Changing their Environment:** Students assess and review their understanding of how organisms, such as beavers, change their environment and affect other organisms.
Student Review	**Factors Affecting an Environment:** Students assess and review their understanding of the effects of environmental changes, such as floods and droughts, on organisms living in the environment.
Interactivity/ Simulation	**Pick the Change:** In the interactive section of this module, students study visuals representing different environmental changes and identify the factors responsible for causing those changes.
WordExplorer	Environmental Changes
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: factors that

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	cause changes in ecosystems, effects of droughts, floods, and fires on ecosystems, effects of human activities on ecosystems.
Journals	Journal #1 – TEKS 3.2D, F; 3.9C Journal #2 – TEKS 3.2D, F; 3.9C
Readers	**The Long Journey of the Monarch**: A description of the monarch butterfly's migration from north to south for winter and back north, following their food source. The text also describes metamorphosis. **Science TEKS:** 3.9(C), 3.10(B), **ELA TEKS**: 3.6(F),3.9(D)i, ii, iii, 3.10(A, B) **Reading levels:** 1
STAARSmart Tests	Unit Test: 3.9 (C) - Environmental Changes

Organisms and environments 3.10

Unit 1: Adaptations - 3.10A

Science Concepts TEKS : 3.10 A

Teacher Resources	Adaptations
Instruction Module	**What is an Adaptation?**: In this Instruction Module, students are introduced to adaptations. They learn about structural and behavioral adaptations by examining the features that help a kangaroo rat survive in the desert.
IM Companion	What is an Adaptation
Student Review	**What is an Adaptation?:** Students assess and review their understanding of the structural and behavioral adaptations of organisms of some plants and animals that help them live in a particular environment.
Interactivity/ Simulation	**Sonoran Desert Organisms:** In the interactive section of this module, students select organisms that belong in the desert environment from a group of organisms, by studying their adaptations.
WordExplorer	Adaptations
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: physical adaptations of plants and animals, behavioral adaptations of plants and animals, how adaptations help organisms survive in their environments.
Journals	Journal #1 – TEKS 3.2F; 3.10A

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	Journal #2 – TEKS 3.2F; 3.10A
Expository text passage/ activities	Organisms and Environments – TEKS 3.1A, B; 3.2 A, B, C, D, F; 3.4A; 3.10 A
Readers	**Adapted Trails of Animals and Plants:** An explanation of how plants and animals have adapted traits that help them survive in their habitat. **Science TEKS:** 3.10 (A), **ELA TEKS**: 3.3(D), 3.9(D)I, 3.10(A,B,C) **Reading levels:** 3
	Where Animals Live: How the parts of some animals help them live in their environment. **Science TEKS:** 1.10 (A) 3.10(A), **ELA TEKS**: 2.6(E); 2.9(D)i **Reading levels:** 3
STAARSmart Tests	Unit Test: 3.10 (A) - Adaptations

Unit 3: Growth and Change - 3.10 B

Science Concepts TEKS : 3.10 B	
Teacher Resources	Growth and Change
Instruction Module	**Simple Life Cycles:** In this Instruction Module, students learn how the life cycle of an organism includes its birth, growth, and reproduction. They understand what a simple life cycle is and are shown examples of organisms that have simple life cycles.
IM Companion	Simple Life Cycles
Instruction Module	**Metamorphosis:** In this Instruction Module, students observe and learn about the different stages in the life cycle of a lady beetle and a frog, two organisms that undergo metamorphosis. They recognize the structural differences between the juvenile and adult stages during metamorphosis.
IM Companion	Metamorphosis
Instruction Module	**Plant Growth Cycles:** In this Instruction Module, students learn about the life cycles of plants. They learn that plants can be classified as annuals, biennials, or perennials depending on whether they complete their life cycle in one, two, or many growing seasons respectively.
IM Companion	**Plant Growth Cycles**

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Student Review	**Simple Life Cycles:** Students assess and review their understanding of the simple life cycle of organisms that include the stages of birth, growth, and reproduction.
Student Review	**Metamorphosis:** Students assess and review their understanding of the different stages of metamorphosis in the life cycles of a lady beetle and frog.
Student Review	**Plant Growth Cycles:** Students assess and review their understanding of why plants are classified as annuals, biennials, or perennials based on their life cycles.
Interactivity/ Simulation	**Try Cycles!:** In the interactive section of this module, students apply their understanding of plant and animal life cycles to identify the types of life cycles that different organisms undergo. **Comparing Life Cycles of Plants:** In this Simulation, students conduct an experiment to compare the length of time it takes for different plants to complete one life cycle.
WordExplorer	Growth and Change
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: simple life cycles in animals, metamorphosis in animals, plant life cycles and classification of plants into annuals, biennials and perennials, based on the number of growing seasons in their life cycles.
Journals	Journal #1 – TEKS 3.2B, D, F; 3.10B Journal #2 – TEKS 3.2B, D, F; 3.10B
Expository text passages/ activities	Lifecycles: Fireflies - TEKS 3.1A, B; 3.2 B, C, D, F; 3.4 A, B; 3.9 A; 3.10 A, 3.10 B
Readers	**Life Cycles of Plants and Animals:** A comparison of the life cycles of animals, insects and plants. **Science TEKS:** 3.10 (B), **ELA TEKS**: 3.13 (B), 3.6(F) **Reading levels:** 1
	The Long Journey of the Monarch: A description of the monarch butterfly's migration from north to south for winter and back north, following their food source. The text also describes metamorphosis. **Science TEKS:** 3.9(C), 3.10(B), **ELA TEKS:** 3.6(F),3.9(D)i, ii, iii, 3.10(A, B) **Reading levels: 1**
STAARSmart Tests	3.10 (B) - Growth and Change

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Grade 4

Scientific Investigation and Reasoning

Scientific Investigation and Reasoning - Grades 3-5 1A, B; 2A, B, C, D, E; 3A, B, C	
Science Concepts TEKS	*Grades 3-5 1A, B; 2A, B, C, D, E; 3A, B, C, D; 4A, B*
Instruction Module	**Safety and Scientific Processes:** In this Instruction Module, students learn how to successfully conduct safe, appropriate science investigations using scientific processes and that it is as important as the science content knowledge gained from the experience.
IM Companion	Safety and Scientific Processes
Interactivity/ Simulation	**Tess' Pulley Experiment:** In this interactivity, students conduct a virtual experimental investigation to test a hypothesis that a pulley system with two pulleys will decrease the force required to lift a mass by half.
WordExplorer	Safety and Scientific Processes
Quiz	The questions in the assessment section test students' understanding of the following concepts: steps used while conducting scientific investigations, safety equipment, tools used for measuring physical quantities, and data and conclusions. The additional questions test students' ability to match quantitative data to graphical representations, identify dependent and independent variables, and identify patterns in data collected during experimentation.
Journals	Journal #1 – Safety and Scientific Processes Journal #2 – Steps in an Experiment
Activities	Collecting, Recording, and Analyzing Information Using Tools Evaluating the Accuracy of Advertisements for Products and Services - TEKS 3.2 B
Expository text passages/ activities	Evaluating Claims for Products and Services – TEKS: 3.1(A), (B); 3.2(A), (B), (C), (D), (E), (F); 3.3(C); 3.4 (A); 4.1(A), (B); 4. 2(A), (B), (C), (D), (E), (F); 4.3 (C); 4.4 (A); 5.1(A), (B); 5.2(A), (B), (C), (D), (E),(F) 5.3 (B), (D); 5.4 (A) Microscopes – 5.1(A), (B), (D), (F); 5.2 (B); 5.3 (D); 5.4 (A); 5.7 (B).
Readers	**Science Tools:** The text explains the importance of scientific tools used by scientists, such as telescopes to study space and microscopes to learn about objects that are too small to see. **Science TEKS:** 4.4(A), **ELA TEKS:** 4.3(B), 4.6(A), 4.9(D)i, ii, iii,

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	4.9(E)i, ii, iii, 4.9(F) **Reading levels:** 1
	Recycling: A process of Sorting: A brief explanation about the importance of recycling material such as paper, plastic, glass, and metal, and the benefits to the environment. **Science TEKS:** 4.1(B), **ELA TEKS:** 4.11(C), 4.9.D.iii (2019) **Reading levels:** 1
	Using Lab Apparatus: An introduction to the types of laboratory equipment, their importance in using them correctly and safely, and how they are used. **Science TEKS:** 4.4(A), 5.4, **ELA TEKS:** 4.11(A), 4.9(D)i (2019) **Reading levels:** 1
	Lab Safety 1: Julie, Fernando, and Henry are a disaster waiting to happen; they do everything they are not supposed to do in a laboratory. **Science TEKS:** 4.1(A), 5.1(A), **ELA TEKS:** 4.13(A), 4.7(C) (2019) **Reading levels:** 1
	Lab Safety 2: The Do's and Do Not's while working in a laboratory. **Science TEKS:** 4.1(A), **ELA TEKS:** 4.6(A), 4.7(D) (2019) **Reading levels:** 1
	Measurements: The importance of using standard units of measurement **Science TEKS:** 4.1(A, **ELA TEKS:** 4.6(A, B, C), 4.9(D)i,ii,iii **Reading levels:** 1
	Who is a Scientist?: An introduction to the wonderful profession of being a scientist, who they are, and what they do. **Science TEKS:** 4.3(C), 5.3(C), **ELA TEKS:** 4.3(B), 4.6(A, B, C), 4.9(D) **Reading levels:** 1
	The Myth of the Scientific Method and Differences between an Experiment and Investigation: An explanation to help clear the many misconceptions and assumptions that people have of scientific exploration, whether it is an experiment or an investigation. **Science TEKS:** 4.2, 5.2, **ELA TEKS:** 5. 11(B), 5.6(G) (2019) **Reading levels:** 1
	Repeatable and Replicable: How replicability and repeatability ensure the credibility of an experiment using baseball stats collected over time as an analogy. **Science TEKS:** 4.2(E), 5.2(E), **ELA TEKS:** 4.11(A), 4.9(D)i (2019) **Reading levels:** 1

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Matter and energy 4.5 A

Unit 1: Measuring Physical Properties - 4.5 A

Science Concepts TEKS : 4.5 A

Teacher Resources	Measuring Physical Properties
Instruction Module	**What is Matter?**: In this Instruction Module, students are introduced to "Matter". Students learn that matter can be classified into solids, liquids, and gases. They compare the physical properties of the three states of matter. The also observe and learn how matter can change states.
IM Companion	What is Matter?
Instruction Module	**Measuring Mass**: In this Instruction Module, students learn that mass is the amount of matter in an object. They also learn how to measure the mass of an object using a triple beam balance.
IM Companion	Measuring Mass
Instruction Module	**Volume:** In this Instruction Module, students learn that the volume of an object is the amount of space it occupies. They observe and infer that two objects cannot occupy the same space at the same time and learn how this property is used to measure the volume of irregular shaped solids using a graduated cylinder. They also learn how to determine the volume of a rectangular prism.
IM Companion	Volume
Instruction Module	**Magnetic Properties:** In this Instruction Module, students are introduced to the magnetic properties of matter. They learn that magnets attract objects made of certain metals like iron. They observe and understand that like poles of magnets repel while unlike poles attract each other.
IM Companion	**Magnetic Properties**
Instruction Module	**Density**: In this Instruction Module, students observe and understand the meaning of density. They learn that density is a measure of the mass of an object compared to its volume. They also learn that an object sinks or floats in water depending on whether its density is greater than or less than the density of water.
IM Companion	Density

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Student Review	**States of Matter:** Students assess and review their understanding of matter, its classification based on its states, and how the states transform on heating or cooling using water as an example.
Student Review	**Measuring Mass:** Students assess and review their understanding of the definition and measurement of mass and volume.
Student Review	**Density:** Students assess and review their understanding of density and how it determines whether objects float on or sink in water
Student Review	**Magnetic Properties:** Students assess and review their understanding of the magnets and the magnetic properties of some types of matter.
Interactivity/ Simulation	**Float or Sink:** In the Interactive section of the module, students "drop" various objects in water and observe them as they float or sink. Based on their observations, they decide whether or not the object is denser than water.
WordExplorer	Measuring Physical Properties
Quiz	The questions in the assessment section test students' understanding of the following concepts: floating and sinking, relative density, measurement of volume, and states of matter. The additional questions test students' ability to identify the correct tools and units to measure mass, read temperatures, and identify the states of matter.
Journals	Journal #1 – TEKS 4.2D, F; 4.5A Journal #2 – TEKS 4.F; 4.5A
Activities	Measuring the Temperature of Pure Water and Salt Water- TEKS 4.1A, B; 4.2A, B, C, E, F; 4.3 A; 4.4 A; 4.5 A
Readers	**How my Parents Torture me at Meals:** Using the situation of a family at the breakfast table, the text explains the importance of using the correct units and tools to measure mass, volume, and other physical quantities. **Science TEKS:** 4.5(A), 4.4(A), **ELA TEKS:** 4.3(B), 4.6(H), 4.9(D)i **Reading levels:** 1
	The Blackbird: How Science and Engineering came together in the making of the legendary bomber plane, the SR-71 Blackbird. **Science TEKS** 4.5 (A), 4.3(C),**ELA TEKS:** 4.3(B), 4.6(A), 4.9(D), 4.10(A) **Reading levels:** 1
	Physical Properties of Matter: Differentiating matter based on the different physical properties of matter. **Science TEKS** 4.4 (A), 4.5(A), **ELA TEKS** 4.11(A), 4.9 (D) (i) **2019** **Reading levels:** 2
STAARSmart Tests	Unit Test: 4.5 (A) - Measuring Physical Properties

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Unit 3: Separating Mixtures - 4.5 B	
Science Concepts TEKS : 4.5 B	
Teacher Resources	Separating Mixtures
Instruction Module	**The Mixed and the Pure:** In this Instruction Module, students are introduced to pure substances and mixtures. They observe various examples of mixtures, identify the substances that make up each mixture and recognize that mixtures can be made up of different combinations of solids, liquids, and gases.
IM Companion	The Mixed and the Pure
Instruction Module	**Identifying Solutions:** In this Instruction Module, students observe examples of different types of mixtures and understand how they differ from one another. They also learn that solutions are a special type of mixtures.
IM Companion	Identifying Solutions
Instruction Module	**Separate the Mixtures**: In this Instruction Module, students learn how mixtures can be separated. They identify different tools that can be used to separate mixtures based on the physical properties of the substances in the mixture. They are also introduced to the process of chromatography.
IM Companion	Separate the Mixtures
Student Review	**Identifying Solutions:** Students assess and review their understanding of mixtures and solutions and their differences.
Student Review	**Separate the Mixtures:** Students assess and review their understanding of the different tools that can be used to separate mixtures based on the physical properties of the ingredients.
WordExplorer	Separating Mixtures
Quiz	The questions in the assessment section test students' understanding of the following concepts: mixtures, solutions, and separation of mixtures using tools and techniques.
Journals	TEKS – 4.2D, F; 4.5B TEKS - 4.2D, F; 4.5B
Activity	Comparing Mixtures and Solutions – TEKS 4.1A, B; 4.2A, B, C, D, F; 4.4A, B; 4.5 C Identifying Mixtures and Solutions – TEKS 4.2D, F; 4.5B
STAARSmart Tests	Unit Test: 4.5 (B) - Separating Mixtures

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Force, motion, and energy 4.6

Unit 1: Forms of Energy - 4.6 A, B

Science Concepts TEKS : 4.6 A, B

Teacher Resources	Forms Of Energy
Instruction Module	**Mechanical Energy**: In this Instruction Module, students learn that kinetic energy and potential energy are forms of mechanical energy. They also observe and recognize how kinetic and potential energy change from one form to another.
IM Companion	Mechanical Energy
Instruction Module	**Sound Energy:** In this Instruction Module, students observe how sound is produced by vibrations and travels as sound waves. They learn that sound needs matter to travel through and travels fastest through solids. They also learn that echoes are a result of the bouncing of sound waves.
IM Companion	Sound Energy
Instruction Module	**Electrical Energy**: In this Instruction Module, students are introduced to electrical energy and its two forms: static electricity and current electricity. They compare and contrast static and current electricity.
IM Companion	Electrical Energy
Instruction Module	**Light Energy**: In this Instruction Module, students learn about light energy and observe how it travels in straight lines. They compare what happens to light when it interacts with transparent, translucent, and opaque materials.
IM Companion	Light Energy
Instruction Module	**Thermal Energy:** In this Instruction Module, students are introduced to thermal energy. They learn that temperature is a measure of thermal energy and compare how conduction, convection, and radiation transfer thermal energy. They also gain an understanding of the difference between conductors and insulators.
IM Companion	Thermal Energy
Student Review	**Mechanical Energy:** Students assess and review their understanding of kinetic energy and potential energy as mechanical energy and their transformation from one to the other.
Student Review	**Sound Energy:** Students assess and review their understanding of the properties of sound energy.

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Student Review	**Electrical Energy:** Students assess and review their understanding of the properties of electrical energy.
Student Review	**Light Energy:** Students assess and review their understanding of the properties of light energy.
Student Review	**Thermal Energy:** Students assess and review their understanding of the properties of thermal energy.
Interactivity/ Simulation	**Energy to Unpack:** In this interactivity, students are presented with various situations and are required to identify the different forms of energy. **Conductor or Insulator?:** In this simulation students will test different materials to find out whether they are electrical conductors or insulators.
WordExplorer	Forms of Energy
Quiz	The questions in the assessment section test students' understanding of the following concepts: meaning of energy, sound waves, transparent, translucent, and opaque materials, and conductors and insulators. The additional questions test students' ability to recognize the units of measurement of energy, interpret information from charts, and recognize that sound travels fastest though solids.
Journals	Journal #1 – question 1 – TEKS 4.2B, D, F; 4.6B , question 2 – *TEKS 4.2F; 4.6A* Journal #2 – TEKS 4.2F; 4.6A
Activities	Forms of Energy (Descriptive Investigation) – TEKS 4.1B; 4.2A, B, D, F; 4.4A, 4.6A Thermal Conductors and Insulators (Descriptive Investigation) – TEKS 4.1A, B; 4.2A, B, C, D, F; 4.3A; 4.4A 4.6B
Readers	**Air is to insulator as Copper is to Conductor:** A look at the workings of a vacuum flask or thermos and how it uses the Science behind insulation and conduction to keep its contents hot or cold. **Science TEKS** 4.6(B),5.5(A), **ELA TEKS** 5.6(F,G), 5.7(F), 5.9(D) **Reading levels:** 1
	Forms and Changes of Energy: Changes of one form of energy to another seen at home on any given day. **Science TEKS** 4.6(A), **ELA TEKS** 4.11(C), 4.9(D)iii **Reading levels:** 2
	Heat Flow: How coats provide heat, based on the concepts of heat transfer, conductors, and insulators. **Science TEKS** 4.6(A) (B),6.9(A), **ELA TEKS** 4.11(C), 4.9(D)iii **2019** **Reading levels:** 3
STAARSmart Tests	4.6 (A) (B) - Forms of Energy

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Unit 2: Electrical Circuits - 4.6 C

Science Concepts TEKS : 4.6 C	
Teacher Resources	Electrical Circuits
Instruction Module	**Electrical Circuits:** In this Instruction Module, students are introduced to electrical circuits. Students learn that the flow of electricity requires a closed path and a source of energy such as a battery. They understand how a switch helps to make or break a circuit. They also learn the difference between electrical conductors and insulators.
IM Companion	Electrical Circuits
Student Review	**Electrical Circuits:** Students assess and review their understanding of static electricity, current electricity, and the requirements for current electricity to flow on a circuit.
Interactivity/ Simulation	**Send A Morse Code:** In the Interactive section, students are "given" a set of items that include electrical conductors and insulators, a switch, a battery, and a light bulb. The students are required to select the correct items to construct an electric circuit. They also identify and select words that are related to current electricity from a list of words. **Electromagnets - An Investigation:** In this Simulation, students conduct an experiment to investigate how the number of turns in the coil wrapped around a nail affects the strength of an electromagnet.
WordExplorer	Electrical Circuits
Quiz	The questions in the assessment section test students' understanding of the following concepts: Electrical conductors and insulators, components of an electrical circuit, electric current, and open and closed circuits.
Journals	Journal #1 – TEKS 4.2F; 4.6C Journal #2 – TEKS 4.2B, F; 4.6C
Readers	**Electric Lighting: History and Function:** The evolution of the light bulb, including the roles of insulators and conductors in circuits. **Science TEKS** 4.6(C), **ELA TEKS** 4.7, 4.6(F) **Reading levels:** 1
STAARSmart Tests	Unit Test: 4.6 (C) - Electrical Circuits

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Unit 3: Forces on an Object - 4.6 D

Science Concepts TEKS : 4.6 D

Teacher Resources	Forces On An Object
Instruction Module	**What Can Force Do?:** In this Instruction Module, students are introduced to force and its effects on objects. They learn that pushes and pulls are called forces. They recognize that force can move an object, stop a moving object, and change the direction and speed of a moving object. They also learn that forces are represented by arrows.
IM Companion	What Can Force Do
Instruction Module	**Balanced and Unbalanced Forces:** In this Instruction Module, students learn that forces have size and direction. They observe examples of balanced and unbalanced forces and learn that an object at rest will move only when the forces acting on it are unbalanced.
IM Companion	Balanced and Unbalanced Forces
Instruction Module	**Mass, Weight, and Gravity:** In this Instruction Module, students are introduced to the difference between mass and weight. They learn that weight is a measure of gravitational force on an object while mass is a measure of the amount of matter in in an object. They also learn the standards units used to measure both mass and weight.
IM Companion	Mass, Weight, and Gravity
Instruction Module	**Friction:** In this Instruction Module, students learn that friction is a force that opposes motion. They observe an experiment and recognize how the type surfaces in contact with each other affects friction.
IM Companion	Friction
Instruction Module	**A Magnet's Force**: In this Instruction Module, students observe examples and understand that magnets exert a force of attraction on certain materials such as iron. They also learn that like of poles of two magnets repel each other while unlike poles attract each other.
IM Companion	A Magnet's Force
Student Review	**What Can Force Do?:** Students assess and review their understanding of force and its effects on an object, such as causing movement, stopping a moving object, or changing its direction.

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Student Review	**Gravity and Magnetism:** Students assess and review their understanding of the effects of gravity on mass and weight, and of magnets on other magnets as well as on iron.
Student Review	**Friction:** Students assess and review their understanding of friction and how it is affected by changes in a surface's roughness.
Interactivity/ Simulation	**Types of Forces:** In the Interactive section of the module, students observe the movement of an object and identify the force that causes the changes in motion. **Temperature's Effect On Magnetic Force:** In this Simulation, students conduct an experiment to investigate how temperature affects the force of a magnet.
WordExplorer	Forces on an Object
Quiz	The questions in the assessment section test students' understanding of the following concepts: balanced and imbalanced forces, direction of frictional forces, gravity and weight, and the units of measuring force. The additional questions test students' ability to identify objects that are attracted to magnets, recognize surfaces on which friction is the least, recognize positions of magnets when they attract or repel each other, and identify the effects of force on an object.
Journals	Journal #1 – TEKS 4.2D, F; 4.6D Journal #2 – TEKS 4.6D
Activities	Testing the Effects of Force on an Object (Descriptive Investigation) – TEKS 4.1A, B; 4.2A, B, C, D, E, F; 4.3C; 4.4A; 4.6D
Readers	**Friction Good or Evil:** Everyday examples of how friction helps us in many ways as well as cases where it is not desired. **Science TEKS** 4.6(D), **ELA TEKS** 4.11(A), 4.9(D)i **Reading levels:** 1 **Eddie the Eagle and his fight against the Forces of Nature:** Using the context of the ski jump of the Olympian, Eddie the Eagle, the text introduces students to the balanced and unbalanced forces that Eddie encounters including gravity, friction, wind resistance, and lift. **Science TEKS** 4.6(D), **ELA TEKS** 4.3(B), 4.6 (F,G,H,I), 4.10 (A) **Reading levels:** 1
STAARSmart Tests	Unit Test: 4.6 (D) - Forces on an Object

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Earth and space 4.7

Unit 1: Soil Properties and Experiments - 4.7 A

Science Concepts TEKS : 4.7 A	
Teacher Resources	Soil Properties And Experiments
Instruction Module	**Properties of Soil**: In this Instruction Module, students learn about the different components that make up soil. They compare how the properties of color, texture, and composition are used to identify soil types. They also investigate and determine the soil best suited for the growth of a tomato plant.
IM Companion	Properties of Soil
Instruction Module	**Soil Water Retention:** In this Instruction Module, students observe an experiment and compare the water retention capacities of different soil types such as sand, silt, clay, and loam. They learn about the steps of the scientific method used when performing an experiment.
IM Companion	Soil Water Retention
Student Review	**Properties of Soil:** Students assess and review their understanding of properties of soils that include color, texture, capacity to retain water, and the ability to support plant growth.
Interactivity/ Simulation	**Soil Properties: How Much Air Is In There?**: In this Simulation, students conduct an experiment that investigates the volume of air bubbles displaced by different soil samples.
WordExplorer	Soil Properties and Experiments
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: properties of soil such as color, texture, water retention, amount of humus, sizes of soil particles, types of soils, organisms present in the soil, and experiments to demonstrate the different soil properties.
Journals	Journal #1 – TEKS 4.2F; 4.7A Journal #2 – TEKS 4.2F; 4.7A
Activities	Activity 1: Soil Properties and Experiments – TEKS 4.2D, F; 4.3A; 4.7A Activity 2: Soil Properties and Experiments (Descriptive Investigation) – TEKS 4.1A, B; 4.2A, B, C, D, F; 4.4A; 4.7A

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	Activity 3: Observing the Properties of Sand Using a Microscope (Descriptive Investigation) – TEKS 4.1A, B; 4.2B; 4.4A; 4.7A
Expository text passages/ activities	Tools Scientists Use: Microscopes – TEKS 4.1A, B; 4.2B, C, D, F; 4.4A; 4.7A
STAARSmart Tests	Unit Test: 4.7 (A) - Soil Properties and Experiments

Unit 2: Observing Change - 4.7 B

Science Concepts TEKS : 4.7 B	
Teacher Resources	Observing Change
Instruction Module	**Changes on the Earth's Surface**: In this Instruction Module, students learn how natural processes such as weathering, erosion, deposition and dissolving can slowly change Earth's surface and create new landforms.
IM Companion	Changes on the Earth's Surface
Instruction Modules	**Using Tables and Charts:** In this Instruction Module, students are introduced to tables and charts. They gain an understanding of how the information represented in both can help them identify patterns of change over time. They examine information about wave erosion in tables and charts to identify patterns of change.
IM Companion	Using Tables and Charts
Student Review	**Changes on the Earth's Surface:** Students assess and review their understanding of how weathering, erosion, deposition caused by wind, water, and glaciers cause slow changes to Earth's surface.
WordExplorer	Observing Change
Quiz	The questions in the assessment section test students' understanding of the following concepts: changes to the Earth's surface, weathering, erosion, dissolving, deposition, use of data in charts and tables to identify and understand changes.
Journals	Journal #1 – TEKS 4.7B Journal #2 – TEKS 4.2B, D, F; 4.7B
Activities	Changes on the Earth's Surface – TEKS 4.2F; 4.7B
Readers	**Sinkholes:** Using the context of the ski jump of the Olympian, Eddie the Eagle, the text introduces students to the balanced and unbalanced forces that Eddie encounters including gravity, friction,

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	wind resistance, and lift. **Science TEKS** 4.6(D), **ELA TEKS** 4.3(B), 4.6 (F,G,H,I), 4.10 (A) **Reading levels:** 1 **Glaciation and its Effects on Landscapes:** The text explains how glaciers form, how they advance, and how they shape the landscape by grinding, and depositing debris. **Science TEKS** 4.7(B), **ELA TEKS** 4.11(C), 4.9(D)iii (2019) **Reading levels:** 1 **Grand Canyon:** A brief introduction to the formation of the Grand Canyon. **Science TEKS** 4.7(B), **ELA TEKS** 4.10 **Reading levels:** 1 **Why is the Ocean Salty?:** Seasoned with 'salty' idioms, the text explains the process of how salt enters the oceans. **Science TEKS** 4.7(B), **ELA TEKS** 4.11(A), 4.9(D)i (2019) **Reading levels:** 1 **Types of Weathering:** What weathering is, and examples of the two main types of weathering, mechanical and chemical weathering. **Science TEKS** 4.7(B), **ELA TEKS** 4.11(A), 4.9(D) i, **Reading levels:** 1 **Erosion: Soil on the Move:** The text brings out the importance of soil as a natural resource that needs to be protected. It explains how soil is created by a slow process called weathering and how certain events or human activities can impact erosion. **Science TEKS** 4.7(B), 3.7(A), **ELA TEKS** 4.6(A), 4.9(D)i **Reading levels:** 1
STAARSmart Tests	Unit Test: 4.7 (B) - Observing Change

Unit 3: Conserving Resources - 4.7 C

Science Concepts TEKS : 4.7 C	
Teacher Resources	Conserving Resources
Instruction Module	**Renewable Resources**: In this Instruction Module, students learn that renewable resources are natural resources plentiful in nature. They identify examples of renewable resources and gain an understanding of why these resources are essential for the survival of life on Earth.
IM Companion	Renewable Resources

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Instruction Module	**Nonrenewable Resources:** In this Instruction Module, students learn that nonrenewable resources are natural resources that exist in limited quantities in nature. They identify examples of nonrenewable resources and learn how these resources are used in everyday life.
IM Companion	Nonrenewable Resources
Instruction Modules	**Conservation of Natural Resources:** In this Instruction Module, students learn what happens when natural resources are depleted and recognize the importance of conservation. They also examine different ways to conserve these resources.
IM Companion	Conservation of Natural Resources
Student Review	**Renewable Resources:** Students assess and review their understanding of renewable resources that include air, plants, water, and animals.
Student Review	**Nonrenewable Resources:** Students assess and review their understanding of nonrenewable resources that include coal, oil, and natural gas.
Student Review	**Conservation of Natural Resources:** Students assess and review their understanding of the importance of conserving natural resources and some ways to conserve them.
Interactivity/ Simulation	**Conserving Resources**: In the Interactive section of this module, students classify and group resources as renewable and nonrenewable resources. Then, they identify which nonrenewable resource is used the most for a certain purpose that is mentioned.
WordExplorer	Conserving Resources
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: renewable and nonrenewable resources, properties of renewable and nonrenewable resources, conservation and actions that help conserve natural resources. The additional questions also test students' ability to recognize the importance of replacing fossil fuels with renewable energy resources.
Journals	Journal #1 – TEKS 4.7C Journal #2 – TEKS 4.7C
Readers	**Resources**: The importance of conserving resources, and how alternative resources, such as solar power, can make a difference. **Science TEKS** 4.7 (C), 4.1 (B), **ELA TEKS** 4.11(C), 4.9 (D) (iii)(2019) **Reading levels:** 3
STAARSmart Tests	Unit Test: 4.7 (C) - Conserving Resources

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Earth and space 4.8

Unit 1: Energy from the Sun and Weather - 4.8 A, B

Science Concepts TEKS : 4.8 A, B

Teacher Resources	Energy From The Sun And Weather
Instruction Module	**Sun's Energy In Food**: This Instruction Module, students learn that the main source of energy they need to grow and survive comes from the Sun. They observe the path of the Sun's energy through plants and animals into our food.
IM Companion	Sun's Energy In Food
Instruction Module	**Sun's Energy and the Water Cycle:** In this Instruction module, students learn how heat energy from the Sun drives the water cycle on Earth.
IM Companion	Sun's Energy and the Water Cycle
Instruction Module	**Weather Maps:** In this Instruction Module, students are introduced to the information meteorologist's record on weather maps. They learn that symbols on a weather map represent high pressure, low pressure, and cold, warm, and stationary fronts. They also learn how each of these conditions affects the weather of a place.
IM Companion	Weather Maps
Student Review	**Sun's Energy and the Water Cycle:** Students assess and review their understanding of the water cycle and the role of the Sun as a major source of energy in this process.
Student Review	**Weather Maps:** Students assess and review their understanding of how weather is measured, recorded, and presented on weather maps using symbols and keys.
Interactivity/ Simulation	**The Vital Sun**: In the Interactive section of this module, students arrange pictures in the correct sequence to depict how the Sun's energy is responsible for the weather, formation of fossil fuels, and the food we eat.
WordExplorer	Energy from the Sun and Weather

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Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: the Sun as the primary source of energy on Earth, responsible for the formation of fossil fuels and the food we eat. The additional questions also test students' understanding of symbols used on weather maps, cold and warm fronts, high and low pressures, and the forms of precipitation.
Journals	Journal #1 – TEKS 4.8B Journal #2 – TEKS 4.2B, D; 4.8A
Activities	Using Weather Maps to Predict Weather – TEKS 4.2B, C, D; 4.3B, C; 4.8A Energy from the Sun and Weather (Descriptive Investigation) – TEKS 4.1A, B; 4.2B, C, D, F; 4.3B; 4.4A; 4.8B Creating a Weather Map – TEKS 4.2B, C, D; 4.3B; 4.4A; 4.8A
Expository text passages/ activities	The Rainiest Place in the United States
Readers	**The Water Cycle: Simple or Complex?**: An explanation of the complexity of the water cycle, how it affects human life, and the impact of human actions on the water cycle. **Science TEKS** 4.8(B), 4.3(B), **ELA TEKS** 4.11(C), 4.9 (D) (iii)(2019) **Reading levels:** 1
	Hygrometer: An introduction to humidity and the different types of hygrometers scientists use to measure humidity. **Science TEKS** 4.8(A),4.4, **ELA TEKS** 4.11(C), 4.9(D)iii (2019) **Reading levels:** 1
	The Water Cycle: The different stages of the water cycle in more detail, including transpiration and runoff. **Science TEKS** 4.8(B),4.4, **ELA TEKS** 4.11(C), 4.9(D)iii (2019) **Reading levels:** 2
	Why is the Ocean Salty?: Seasoned with 'salty' idioms, the text explains the process of how salt enters the oceans. **Science TEKS** 4.7(B), **ELA TEKS** 4.11(A) 4.9(D)i (2019) **Reading levels:** 1
STAARSmart Tests	Unit Test: 4.8 (A) (B) - Energy from the Sun and Weather

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Unit 2: Recognizing Patterns in Changes - 4.8 C

Science Concepts TEKS : 4.8 C

Teacher Resources	Recognizing Patterns Of Change
Instruction Module	**Seasonal Patterns, Weather, and Climate:** In this Instruction Module, students observe seasonal patterns. They recognize that seasons are accompanied by changes in weather. They also learn that climate is the pattern of weather in a place over several years.
IM Companion	Seasonal Patterns, Weather, and Climate
Instruction Module	**Patterns of the Sun:** In this Instruction Module, students are introduced to the daily patterns of Sun including sunrise and sunset, its apparent movement across the sky during a day, and how it causes patterns in shadows. They also observe how the position of the Sun in the sky changes during the different seasons and affects the length of the day and night.
IM Companion	Patterns of the Sun
Instruction Module	**Patterns Caused by the Moon:** In this Instruction Module, students learn about the lunar cycle and understand what causes the different phases of the Moon.
IM Companion	Patterns Caused by the Moon
Student Review	**Seasonal Patterns, Weather, and Climate:** Students assess and review their understanding of the patterns of the seasons and of weather over time, which forms the climate of a particular place.
Student Review	**The Sun and Shadows:** Students assess and review their understanding of the change in the Sun's position in the sky during different seasons and the effects of the Sun's movement on shadows during daytime.
Student Review	**Patterns Caused by the Moon:** Students assess and review their understanding of the phases of the lunar cycle and how the Moon's gravity causes tides.
Interactivity/ Simulation	**Recognizing Patterns in Changes**: In the Interactive section of this module, students arrange pictures in the correct sequence to depict patterns in the seasons, patterns in the apparent movement of the Sun based on the observation of shadows at different times of the day, and patterns in the lunar cycle.

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	Shadows And Seasons: In this Simulation, students conduct an experiment to investigate if the length of a shadow follows a pattern throughout the year.
WordExplorer	Recognizing Patterns in Changes
Quiz	The questions in the assessment section test students' understanding of the following concepts: patterns in weather, day and night, and lunar cycle. The additional questions test students' ability to interpret and draw conclusions from data given in the form of graphs, tables, and chart.
Journals	Journal #1 – TEKS 4.2A, F; 4.8C Journal #2 – TEKS4.2F; 4.8C
Activities	Recognizing Patterns in Changes – TEKS 4.1A; 4.2B, C, D, F; 4.4A; 4.8C
Readers	**How Plants sense the Seasons?:** How plants like the Christmas Cactus know the seasons by detecting changes in the length of daylight. **Science TEKS** 4.8 (C), **ELA TEKS** 4.11(A),4.9(D)i (2019) **Reading levels:** 1 **Phases of the Moon:** All about the Moon; its light, its phases, and what manned missions to the Moon taught us. **Science TEKS** 4.3(C), 4.8 (C), **ELA TEKS** 4.11(A),4.9(D) i **Reading levels:** 1 **Earth, Moon and Sun:** All about the Moon; its light, its phases, and what manned missions to the Moon taught us. **Science TEKS** 4.8(C), 5.8 (C), **ELA TEKS** 4.11(C), 5.11(C), 4.9 (D)(iii) , 5.9(D)(iii) (2019) **Reading levels:** 3
STAARSmart Tests	Unit Test: 4.8 (C) - Recognizing Patterns in Changes

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Organisms and environments 4.9

Unit 1: Producers and Consumers - 4.9A

Science Concepts TEKS : 4.9 A

Teacher Resources	Producers And Consumers
Instruction Module	**Ecosystems**: In this Instruction Module, students learn about ecosystems and why they are important. They identify suitable ecosystems for different animals and recognize that ecosystems can be large or small.
IM Companion	Ecosystems
Instruction Module	**Role of Producers:** In this Instruction Module, students understand that plants are called producers because they can make their own food through photosynthesis. They also learn how plants make the Sun's energy available to all other organisms in an ecosystem.
IM Companion	Role of Producers
Instruction Module	**Consumers:** In this Instruction Module, students will learn that all animals are consumers because they depend on other organisms for their energy. They learn to identify, describe, and give examples of the different types of consumers such as herbivores, carnivores, omnivores, predators, prey, and scavengers.
IM Companion	Consumers
Instruction Module	**Decomposers:** In this Instruction Module, students learn about the role of decomposers in an ecosystem and give examples of some common decomposers. They also learn how decomposers recycle nutrients in an ecosystem, making those nutrients available again for plants.
IM Companion	Decomposers
Student Review	**Producers, Consumers, and Decomposers:** Students assess and review their understanding of what producers, consumers, and decomposers need to survive and the roles they play in food chains.
Interactivity/ Simulation	**Got the Munchies!**: In the Interactive section of the module, students apply their understanding of consumers, and decomposers and sort organisms as herbivores, carnivores, omnivores, or decomposers, based on their food preferences.
WordExplorer	Producers and Consumers

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Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: relationships between organisms in an environment, types of organisms in an environment, and classification of organisms based on the type of food consumed by them.
Journals	Journal #1 – TEKS 4.2B, D, F; 4.9A Journal #2 – TEKS 4.9A
Readers	**Aquatic Food Web:** The text explains how energy flows through an aquatic food chain from the Sun to phytoplankton to zooplankton, and then to other organisms. It emphasizes the need to preserve these food webs. **Science TEKS** 4.9(A), **ELA TEKS** 4.3(B), 4.6(D, E), 4.7(G), 4.9(D)i Reading levels: 1
	Plants get hungry too!: The text introduces students to the process of photosynthesis. It explains how, unlike us, plants are producers and use water, air, and sunlight to make a kind of sugar, mostly in the leaves. **Science TEKS** 4.9(A), 4.10(A), **ELA TEKS** 4.3(B); 4.6(G, H); 4.7(C); 4.9(D)I,ii; 4.10(A, B) **Reading levels: 1**
STAARSmart Tests	Unit Test: 4.9 (A) - Producers and Consumers

Unit 2: Food Webs - 4.9B

Science Concepts TEKS : 4.9 B

Teacher Resources	Food Webs
Instruction Module	**Food Chains**: In this Instruction Module, students learn how energy from the Sun is converted to chemical energy by producers and passed on to consumers. They learn how a food chain is used to represent this flow of energy from organism to organism. Students also recognize that some consumers can be classified as herbivores and omnivores.
IM Companion	Food Chains
Instruction Module	**Food Webs:** In this Instruction Module, students understand how food chains are interconnected to form food webs. They learn how food webs are used to recognize the many different relationships between organisms in an ecosystem.
IM Companion	Food Webs

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Instruction Module	**Factors Affecting Populations:** In this Instruction Module, students are introduced to the effects a forest fire might have on the different populations of organisms living in an ecosystem. They recognize how a change in the number of producers or consumers can affect an entire food web.
IM Companion	Factors Affecting Populations
Student Review	**Food Chains:** Students assess and review their understanding of the energy flow starting from the sun through food webs in an ecosystem.
Student Review	**Food Webs:** Students assess and review their understanding of food chains forming food webs and relationships of the organisms within an ecosystem.
Student Review	**Factors Affecting Populations:** Students assess and review their understanding of effects of a forest fire on the different populations of organisms living in it.
Interactivity/ Simulation	**Go with the Energy Flow**: In this interactivity, students apply their understanding of food chains to identify the roles of organisms in a food chain and the correct order of energy flow.
WordExplorer	Food Webs
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: flow of energy through food chains and food webs, role of producers, consumers, and decomposers in an ecosystem, and factors affecting populations of organisms in food chains and food webs.
Journals	Journal #1 – TEKS 4.9B Journal #2 – TEKS 4.9B
Expository text passage/ activities	The Brown Tree Snake and Descriptive Investigation – *TEKS 4.1A, B; 4.2A, B, C, D, F; 4.4A; 4.9B*
Readers	**Energy Flow in the Environment:** A second person narrative of how you share energy in a food chain along with the producers and other consumers. **Science TEKS** 4.9(B), **ELA TEKS** 4.11(C), 4.9.D.iii **Reading levels: 3**
STAARSmart Tests	Unit Test: 4.9 (B) - Food Webs

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Organisms and environments 4.10

Unit 1: Organisms and Environments - 4.10 A

Science Concepts TEKS : 4.10 A

Teacher resources	Organisms and Environments
Instruction Module	**Structures and Functions of Organisms**: In this Instructional Module, students are introduced to structural characteristics that help organisms survive. They examine some structures and their functions in camels and chimpanzees.
IM Companion	Structures and Functions of Organisms
Instruction Module	**Structures and their Functions:** In this Instructional Module, students recognize how camouflage and mimicry help organisms survive in their environment.
IM Companion	Structures and their Functions
Student Review	**Structures and their Functions**: Students assess and review their understanding of how different structures enable organisms to survive in their environment.
WordExplorer	Organisms and Environments
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: structural adaptations of organisms in different environments including mimicry and camouflage, behavioral adaptations such as migration, and effects of changing environments on organisms.
Journals	Journal #1 – TEKS 4.10A Journal #2 – TEKS 4.2B, D, F; 4.10A
Expository text passages/ activities	Insect Adaptations (Descriptive Field Investigation) – *TEKS 4.1A, B; 4.2A, B, D, F; 4.3C; 4.4A; 4.10A*
Readers	**Bears:** A second person narrative of how you share energy in a food chain along with the producers and other consumers. **Science TEKS** 4.9(B), ELA TEKS 4.11(C), 4.9.D.iii **Reading levels**: 3
	Plants get hungry too!: The text introduces students to the process of photosynthesis. It explains how, unlike us, plants are producers and use water, air, and sunlight to make a kind of sugar, mostly in the leaves.

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	Science TEKS 4.9(A), 4.10(A**), ELA TEKS** 4.3(B); 4.6(G, H); 4.7(C); 4.9(D)I,ii; 4.10(A, B) Reading levels: 1
	A Horse of Course: An explanation of how early animals such as the Eohippus gradually changed into the horse we know today, inheriting features or characteristics that helped them survive in their environment. **Science TEKS** 4.10(A), 4.10(B), **ELA TEKS** 4.6(A), 4.9(D)i **Reading levels**: 1
STAARSmart Tests	Unit Test: 4.10 (A) - Organisms and Environments

Unit 2: Traits and Characteristics – 4.10 B

Science Concepts TEKS : 4.10 B	
Teacher Resources	Traits And Characteristics
Instruction Module	**Inherited Traits and Survival**: In this Instruction Module, students learn that inherited traits are characteristics passed on from parents to offspring. They are introduced to some examples of inherited traits. They also learn how the inherited traits of some organisms help them survive in their environment.
IM Companion	Inherited Traits and Survival
Instruction Module	**What is Learned Behavior?:** In this Instruction Module, students are introduced to the difference between learned behaviors and inherited traits. They also gain knowledge about how some learned behaviors helps organisms survive in their environment.
IM Companion	What is Learned Behavior?
Student Review	**Inherited Traits and Learned Behavior:** Students assess and review their understanding of inherited traits and learned behavior and they are different from each other.
Interactivity/ Simulation	**Sort The Pictures**: In this Interactive section, students learn to distinguish between inherited traits and learned characteristics by identifying whether different pictures show inherited traits or learned characteristics of organisms.
WordExplorer	Traits and Characteristics

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Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: inherited traits of organisms and learned characteristics in humans and animals.
Journals	Journal #1 – TEKS 4.2F; 4.10B Journal #2 – TEKS 4.2F; 4.10B
Readers	**A Horse of Course:** An explanation of how early animals such as the Eohippus gradually changed into the horse we know today, inheriting features or characteristics that helped them survive in their environment. **Science TEKS** 4.10(A), 4.10(B), **ELA TEKS** 4.6(A), 4.9(D)i **Reading levels**: 1
	Instincts and Learned Behaviors: An introduction to instinctive and learned behaviors through the story of Jake, the dog. Apart from his instinctive behavior, Jake has learned skills with which he can help Kathy who cannot walk. **Science TEKS** 4.10(B), **ELA TEKS** 4.3(B), 4.6(E, F), 4.10(A) **Reading levels**: 1
STAARSmart Tests	Unit Test: 4.10 (B) - Traits and Characteristics

Unit 3: Comparing Life Cycles – 4.10 C

Science Concepts TEKS : 4.10 C	
Teacher Resources	Comparing Life Cycles
Instruction Module	**Life Cycles of Animals**: In this Instruction Module, students compare and contrast simple life cycles and complex life cycles in organisms.
IM Companion	Life Cycles of Animals
Instruction Module	**Life Cycle of a Butterfly:** In this Instruction Module, students learn about and observe the different stages in the life cycle of a butterfly. They understand that a butterfly undergoes metamorphosis, or a complete change, during its life cycle.
IM Companion	Life Cycle of a Butterfly
Instruction Module	**Incomplete Metamorphosis:** In this Instruction Module, students learn that some insects such as grasshoppers go through incomplete metamorphosis, where the larval stage resembles the adult. They learn to identify and describes the various stages in the incomplete metamorphosis of a grasshopper. They will also learn to compare incomplete metamorphosis with complete metamorphosis.
IM Companion	Incomplete Metamorphosis

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Instruction Module	**Plant Life Cycles:** In this Instruction Module, students learn that plants have a complex life cycle. They examine the different stages in the life cycle of an oak tree and a radish plant.
IM Companion	Plant Life Cycles
Student Review	**Life Cycles of Animals:** Students assess and review their understanding of life cycles and the different types seen in some animals.
Student Review	**Life Cycle of a Butterfly:** Students assess and review their understanding of the main feature of the four stages in a butterfly's life cycle.
Student Review	**Plant Life Cycles:** Students assess and review their understanding of the life cycles of plants using the examples of a bean plant and an oak tree.
WordExplorer	Comparing Life Cycles
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: simple and complex life cycles, metamorphosis in animals with complex life cycles such as frogs and butterflies, comparison of life cycles of different organisms.
Journals	Journal #1 – TEKS 4.2B, F; 4.10C Journal #2 – TEKS 4.2B, D, F; 4.10C
Activities	Life Cycle of a Dandelion (Descriptive Field Investigation) - TEKS 4.1A, B; 4.2A, B, C, D, F; 4.4A; 4.10C
STAARSmart Tests	Unit Test: 4.10 (C) - Comparing Life Cycles

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Grade 5

Scientific Investigation and Reasoning Skills

Unit 1: Scientific Investigation and Reasoning Grades 5.1A, 1B, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 3A, 4A

Science Concepts TEKS : 5.1A, 1B, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 3A, 4A	
Instruction Module	**Safety and Scientific Processes**: In this Instruction Module, students learn how to successfully conduct safe, appropriate science investigations using scientific processes and that it is as important as the science content knowledge gained from the experience.
IM Companion	Safety and Scientific Processes
Interactivity/ Simulation	**Tess' Pulley Experiment**: In this simulation, students conduct a virtual experimental investigation to test a hypothesis that a pulley system with two pulleys will decrease the force required to lift a mass by half.
WordExplorer	Safety and Scientific Processes
Quiz	The questions in the assessment section test students' understanding of the following concepts: steps used while conducting scientific investigations, safety equipment, tools used for measuring physical quantities, and data and conclusions. The additional questions test students' ability to match quantitative data to graphical representations, identify dependent and independent variables, and identify patterns in data collected during experimentation.
Journals	Journal #1 – Safety and Scientific Processes Journal #2 – Steps in an Experiment
Activities	Collecting, Recording, and Analyzing Information Using Tools Evaluating the Accuracy of Advertisements for Products and Services - TEKS 3.2 B
Expository text passages/ activities	Evaluating Claims for Products and Services – TEKS: 3.1(A), (B); 3.2(A), (B), (C), (D), (E), (F); 3.3(C); 3.4 (A); 4.1(A), (B); 4. 2(A), (B), (C), (D), (E), (F); 4.3 (C); 4.4 (A); 5.1(A), (B); 5.2(A), (B), (C), (D), (E),(F) 5.3 (B), (D); 5.4 (A) Microscopes – 5.1(A), (B), (D), (F); 5.2 (B); 5.3 (D); 5.4 (A); 5.7 (B).
Readers	**Cold Fusion: A Case for replication:** Students are introduced to the importance of replicability of Science experiments and how it played a role in the history of cold fusion experiments. **Science TEKS** 5.2E, 5.3(A), **ELA TEKS** 5.3(B), 5.6(F), 5.7(G), 5.9(D)i **Reading levels**: 1

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Variables: An investigation of a car's speed and independent, dependent, and control variables that affects it.
Science TEKS 5.2 (A), **ELA TEKS** 5.11(A), 5.7(D) (2019)
Reading levels: 1

Using Lab Apparatus: An introduction to the types of laboratory equipment, their importance in using them correctly and safely, and how they are used.
Science TEKS 5.4 (A), **ELA TEKS** 4.11(A), 4.9(D)i (2019)
Reading levels: 1

Creativity and Tentativeness: Twins Mary and Sherry conduct an investigation on their wrapped birthday presents to figure out what may be inside them.
Science TEKS 5.2(C), 5.2(D)**, ELA TEKS** 5.6(E, F), 5.10 (A, B, C, D, E, F)
Reading levels: 1

Hypothesis Testing: An explanation of what constitutes a hypothesis, it's related vocabulary, and how scientists go about testing hypotheses.
Science TEKS 5.2(B)**, ELA TEKS** 5.11, 5.7(C) (2019)
Reading levels: 1

Lab Safety 1: Julie, Fernando, and Henry are a disaster waiting to happen; they do everything they are not supposed to do in a laboratory.
Science TEKS 5.1(A)**, ELA TEKS** 4.13(A), 4.7(C) (2019)
Reading levels: 1

Lab Safety 2: The Do's and Do Not's while working in a laboratory.
Science TEKS 5.1(A)**, ELA TEKS** 4.6(A), 4.7(D) (2019)
Reading levels: 1

Repeatable and Replicable: How replicability and repeatability ensure the credibility of an experiment using baseball stats collected over time as an analogy.
Science TEKS 4.2(E),5.2(E)**, ELA TEKS** 4.11(A), 4.9(D)i (2019)
Reading levels: 1

Who is a Scientist?: An introduction to the wonderful profession of being a scientist, who they are, and what they do.
Science TEKS 4.3(C)5.3(C), ELA TEKS 4.3(B), 4.6(A, B, C), 4.9(D)i,ii,ii
Reading levels: 1

Constructing Scientific Understandings: Dotti's and John's Physical Science teacher, Mr Hansen, engages his class with fun demonstrations to teach them about making observations and predictions.
Science TEKS 5.2(D), 5.3(A), **ELA TEKS** 5.10(A,B,C)
Reading levels: 1

The Myth of the Scientific Method: An explanation to help clear the many misconceptions and assumptions that people have of scientific

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	exploration, whether it is an experiment or an investigation. **Science TEKS** 4.2, 5.2 **ELA TEKS** 5. 11(B), 5.6(G) **Reading levels:** 1
	Variables in Experiments and Investigations: How the nature of variables distinguishes an experiment from an investigation in context of baseball. **Science TEKS** 5.2(A) **ELA TEKS** 5.11(E), 5.6(H) (2019) **Reading levels:** 1
	Weather: What weather is and the tools and methods meteorologists use to analyze weather to make predictions. **Science TEKS** 5.3(A), 5.3(C) **ELA TEKS** 5.11(E), 5.6(H) (2019) **Reading levels:** 1
	Difference between Science, Engineering, and Technology: What STEM means and the explanations for the terms Science, Technology, and Engineering in context of each other? **Science TEKS** 5.3 (C) **ELA TEKS** 5.11(C), 5.9(D)iii (2019) **Reading levels:** 1
	The Bone wars: A brief look at paleontology and its rivalry-fueled history in American Science. **Science TEKS** 5.3 (A), 5.3 (C) **ELA TEKS** 5.11(A), 5.7(D) (2019) **Reading levels:** 1

Reporting Category 1: Matter and Energy

Unit 1: Physical Properties of Matter - 5.5 (A)

Science Concepts TEKS : 5.5 (A)

Teacher resources	Physical Properties Of Matter
Instruction Module	**Classification of Matter:** In this Instruction Module, students compare and contrast the properties of solids, liquids, and gases, and recognize that matter can be classified based on these physical properties.
IM Companion	Classification of Matter
Instruction Module	**Mass:** In this Instruction Module, students learn that mass is the amount of matter in an object and can be measured using a triple beam balance. They observe and measure the mass of substances before and after a physical change to recognize that mass is conserved.
IM Companion	Mass

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Instruction Module	**Density, Solubility, and Magnetism:** In this Instruction Module, students learn that density, solubility, and magnetism are physical properties that can be used to classify matter.
IM Companion	Density, Solubility, and Magnetism
Instruction Module	**Thermal Conductors and Insulators:** In this Instruction Module, students learn that matter can be classified according to whether or not it transfers heat. They observe various examples of thermal conductors and insulators and recognize some of the ways they are used in everyday life.
IM Companion	Thermal Conductors and Insulators
Instruction Module	**Conductors and Insulators of Electricity:** In this Instruction Module, students learn that matter can be classified according to whether or not it transfers electricity. They observe various examples of electrical conductors and insulators and recognize some of the ways they are used in everyday life.
IM Companion	Conductors and Insulators of Electricity
Student Review	**Classification of Matter:** Students assess and review their understanding of the physical properties of matter and the classification of matter based on their states.
Student Review	**Mass:** Students assess and review their understanding of mass of an object, its measurement using a triple beam balance, and its conservation after a physical change.
Student Review	**Density, Solubility, and Magnetism:** Students assess and review their understanding of the physical properties of solubility of matter in water, magnetism, and relative density that determines why objects sink or float.
Student Review	**Thermal Conductors and Insulators:** Students assess and review their understanding of some examples and uses of conductors and insulators of thermal energy.
Student Review	**Conductors and Insulators of Electricity:** Students assess and review their understanding of some examples and uses of conductors and insulators of electrical energy.
Interactivity/ Simulation	**Thermal Energy - Conductor Or Insulator?**: In this simulation students will classify materials as thermal insulators or thermal conductors by conducting a simple investigation.

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WordExplorer	Physical Properties of Matter
Quiz	The questions in the assessment section test students' understanding of the following concepts: conductors and insulators, properties of solids, liquids, and gases, and attraction to magnets.
Journals	Journal 1 – TEKS 5.5A Journal 2 – TEKS 5.5A
Activities	Classifying Matter (STEM Activity) – TEKS 5.1B; 5.2A, B, C, D, F; 5.4A; 5.5A Using Physical Properties to Classify Matter – TEKS 5.1A, B; 5.2A, B, C, D, F; 5.4A; 5.5A
Readers	**Air is to Insulator as Copper is to Conductor:** A look at the workings of a vacuum flask or thermos and how it uses the Science behind insulation and conduction to keep its contents hot or cold. **Science TEKS** 5.5(A), 4.6 (B), **ELA TEKS** 5.6(F, G), 5.7(F), 5.9(D)iii **Reading levels:** 1 **All that Glitters:** The author talks about how their teacher Mr. Jones taught them about the properties of matter by explaining the mixing of metals to make alloys. **Science TEKS** 5.5(A), 4.6 (B), **ELA TEKS** 5.3(B), 5.6(F), 5.7(F, G), 5.9(D) **Reading levels:** 1 **The Blackbird:** How Science and Engineering came together in the making of the legendary bomber plane, the SR-71 Blackbird. **Science TEKS** 5.5(A), 5.3(C), **ELA TEKS** 4.3(B), 4.6(A), 4.9(D), 4.10(A) **Reading levels:** 1
STAARSmart Tests	Unit Test: 5.5 (A) - Physical Properties of Matter

Unit 2: Mixtures and Solutions - 5.5 (B) (C)

Science Concepts TEKS : 5.5 B, C	
Teacher Resources	Mixtures And Solutions
Instruction Module	**Solutions:** In this Instruction Module, students learn that solutions are homogeneous mixtures. They observe how size, a physical property of salt, changes in a salt water solution. They also learn that alloys are solutions made up of two or more metals.
IM Companion	Solutions

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Instruction Module	**Using Properties to Separate Mixtures:** In this Instruction Module, students learn how some mixtures can be separated based on the physical properties of their components. They observe how magnetism, filtration, and evaporation can be used to separate some mixtures.
IM Companion	Using Properties to Separate Mixtures
Instruction Module	**Mixtures:** In this Instruction Module, students learn about mixtures and recognize that the ingredients in such mixtures maintain their physical properties.
IM Companion	Mixtures
Student Review	**Mixtures:** Students assess and review their understanding of how the ingredients of some mixtures retain their physical properties.
Student Review	**Solutions:** Students assess and review their understanding of how the physical properties, such as size, of one or more ingredients can change in solutions.
Interactivity/ Simulation	**Properties Of Mixtures:** In this Simulation, students conduct an experimental investigation to determine if different materials, when mixed with water, will maintain their size (which is a physical property) or dissolve.
WordExplorer	Mixtures and Solutions
Quiz	The questions in the assessment section test students' understanding of the following concepts: mixtures, tools and techniques used to separate mixtures based on the physical properties of the ingredients, and solutions, properties that change when a solution is formed, and recognize that the mass of the ingredients does not change when a mixture is created.
Journals	Journal 1 – TEKS 5.5C, D Journal 2 – TEKS 5.5D
Activities	The Ingredients of Solutions – TEKS 5.5 D
Readers	**Danger in the Grain Elevator:** A second person point of view that explains the Science behind silo explosion on farms during the hottest days of summer. **Science TEKS** 5.5(C), **ELA TEKS** 5.3(B), 5.6(E, G, H) **Reading levels:** 1 **Physical and Chemical Changes:** The delicious Science of physical and chemical changes behind baking and eating a chocolate cake. **Science TEKS** 5.5 (B)**, ELA TEKS** 5.11(B), 5.6(G) **Reading levels: 1**

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	The Making of Soft Drinks: The delicious Science of physical and chemical changes behind baking and eating a chocolate cake. **Science TEKS** 5.5 (B)**, ELA TEKS** 5.11(B), 5.6(G) **Reading levels: 1** **Separating mixtures:** Looking for shark teeth on the beach using the basics of separating mixtures and the physical properties of matter. **Science TEKS** 5.5 (B)**, ELA TEKS** 5.11(B), 5.6(G) 2019 **Reading levels: 1** **All that Glitters:** The author talks about how their teacher Mr. Jones taught them about the properties of matter by explaining the mixing of metals to make alloys. **Science TEKS** 5.5(A), 4.6 (B), **ELA TEKS** 5.3(B), 5.6(F), 5.7(F, G), 5.9(D) **Reading levels:** 1 **Why is the Ocean Salty?:** Seasoned with 'salty' idioms, the text explains the process of how salt enters the oceans. **Science TEKS** 4.7(B), ELA TEKS 4.11(A), 4.9(D)i (2019) **Reading levels: 1**
STAARSmart Tests	Unit Test: 5.5 (B) (C) - Mixtures and Solutions

Unit 3: States of Matter - 3.5 (B) (C)

Science Concepts TEKS : 3.5 (B) (C)	
Teacher Resources	States of Matter
Instruction Module	**Matter**: In this Instruction Module students learn that matter is anything that has mass and takes up space. They learn how a pan balance can be used to compare and measure mass. They also learn how to measure the volume of matter, including how to use a graduated cylinder to measure the volume of irregularly shaped objects.
IM Companion	Matter
Instruction Module	**Solids, Liquids, and Gases:** In this Instruction Module students are introduced to the three states of matter: solids, liquids, and gases. They compare how the physical properties of shape and volume define each state of matter. They also learn that differences in state are a result of differences in the arrangement of particles within solids, liquids and gases.
IM Companion	Solids, Liquids, and Gases

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Instruction Module	**Changing States of Water:** In this Instruction Module students observe changes in the state of matter. They learn how adding or removing heat affects the particles that make up water and results in a change of state.
IM Companion	Changing States of Water
Student Review	**Solids, Liquids, and Gases:** Students assess and review their understanding of the physical properties of solids, liquids, and gases, such as shape and volume. They also review how the arrangements of particles of matter determine their states.
Student Review	**Changing States of Water:** Students assess and review their understanding of how the addition and removal of heat affect the particles of matter and its state, using water as an example.
Interactivity/ Simulation	**Matter Sorter:** In this interactivity, students identify and classify given materials as solids, liquids, or gases, based on their physical properties.
WordExplorer	States of Matter
Quiz	The questions in the assessment section test students' understanding of the following concepts: properties of solids, liquids, and gases, and the arrangement of particles of matter in each of them. The additional questions test students' ability to recognize the properties of solids, liquids, and gases, the tools used to measure mass and volume, and the processes of melting, freezing, and evaporation.
Journals	Journal #1 – TEKS 3.5B Journal #2 – TEKS 3.2F; 3.5C
Activities	States of Matter Chart and Venn Diagram – TEKS 3.2B, C, D; 3.5B Matter and Energy: Dissolving a Sugar Cube – TEKS 3.1A, B; 3.2A, B, C, D, F; 3.4A; 3.5C
Readers	**Foggy Day:** An introduction to the processes of condensation and evaporation, and their roles in the formation of dew, fog, and the water cycle. **Science TEKS**: 3.5(C), 3.3(B)**ELA TEKS:** 3.6(I), 3.7(D), 3.8(A,B) **Reading Levels:** 3 **A Bridge of Ice:** The changing of liquid water to solid ice of a lake makes all the difference between survival and scarcity for a town in Canada. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)iii (2019) **Reading Levels:** 1 **Water in its Various Forms:** Water's unique property of existing in all three states of matter, with some examples.

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	Science TEKS: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)iii (2019) **Reading Levels:** 1 **Changes in Matter:** An explanation of changes of state in matter as seen in simple examples, such as making of popcorn and melting of ice cream. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.9(D)iii 3.13(C) **Reading Levels: 2** **Water in its Various States:** A look at the physical properties of the different states of matter using water's various forms as example. **Science TEKS**: 3.5(B) **ELA TEKS:** 3.13(A), 3.6(G)(2019) **Reading Levels: 2** **Water and the Three States of Matter:** A study of the three states of matter in context of water occurring in nature, and the phenomena of evaporation and condensation. **Science TEKS**: 3.5(C) **ELA TEKS:** 3.13(C), 3.9(D)(i) (2019) **Reading Levels: 2**
STAARSmart Tests	Unit Test: 3.5 (B) (C) - States of Matter

STAARSmart Tests – Reporting Category Tests	
STAARSmart Tests	Reporting Category Test: Matter and Energy

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Reporting Category 2: Force, Motion, and Energy

Unit 1: Energy Conversions - 5.6 (A)

Science Concepts TEKS : 5.6 (A)

Teacher Resources	Energy Conversions
Instruction Module	**Heat, Light, and Electrical Energy**: In this Instruction Module, students are introduced to different forms of energy. They learn that the Sun provides us with heat and light energy. They identify other sources of heat and light energy and recognize that both can be generated by electrical energy. Students also observe some ways heat, light, and electrical energy are used in everyday life.
IM Companion	Heat, Light, and Electrical Energy
Instruction Module	**Mechanical Energy and Sound:** In this Instruction Module, students are introduced to mechanical energy. Through observations, they learn that objects have mechanical energy due to their motion or position. They also learn that sound is a form of mechanical energy produced by vibrations of matter, and can travel through solids, liquids, and gases.
IM Companion	Mechanical Energy and Sound
Instruction Module	**Energy Transformations:** In this Instruction Module, students are introduced to energy transformations. They learn that energy is neither created or destroyed but can change from one form to another. They observe various examples of common energy transformations that take place in their everyday lives.
IM Companion	Energy Transformations
Student Review	**Heat, Light, and Electrical Energy:** Students assess and review their understanding of the sources and uses of thermal, light, and electrical energy in daily life.
Student Review	**Mechanical Energy and Sound:** Students assess and review their understanding of what mechanical and sound energy are and how they help us in daily life.
Interactivity/ Simulation	**Exploring The Uses Of Mechanical Energy:** In this Simulation, students conduct an experimental investigation to explore how the energy in a twisted rubber band used in a spool racer is transformed into mechanical energy.
WordExplorer	Energy Conversions

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Quiz	The questions in the assessment section test students' understanding of the following concepts: sources of energy, different forms of energy, thermal energy as the energy of the moving particles of matter, and transformations of energy. The additional questions test students' ability to recognize the form of energy that plants need for photosynthesis, and identify energy transformations.
Journals	Journal #1 – TEKS 5.6A Journal #2 – TEKS 5.2D; 5.6A
Activities	Exploring Uses of Energy – TEKS 5.2G; 5.6A Converting Thermal Energy to Motion (Descriptive Investigation) – TEKS 5.1A, B; 5.2B, C, D, F; 4.4A; 5.6A
Readers	**One Old Light Bulb:** A brief introduction to the conversion of electric current to heat and light, and the application of this conversion in lightbulbs. **Science TEKS**: 5.6(A), 5.1(B) **ELA TEKS:** 5.3(B), 5.6(H), 5.9(D) **Reading Levels: 2** **How Light Affects Sight:** The text explains how light allows us to see through reflection and absorption, and the roles of the eyes and brain in processing visual input. **Science TEKS**: 5.6(A), 5.6(C), 5.10(A) **ELA TEKS:** 5.9(D), 5.10(A) **Reading Levels: 2** **Speaking to the Man on the Moon:** Recalling the day man first landed on the Moon becomes an impromptu Science lesson on mechanical and electromagnetic waves. **Science TEKS**: 5.3(C), 5.6(A) **ELA TEKS:** 5.11(B), 5.6(G) (2019) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 5.6 (A) - Energy Conversions

Unit 2: Electricity- 5.6 (B)

Science Concepts TEKS : 5.6 (B)

Teacher Resources	Electricity
Instruction Module	**What is Electricity?:** In this Instruction Module, students learn that electrical devices work on electric current. They understand that the flow of electric current requires a source of energy and a closed continuous path called an electric circuit. They recognize how electrical energy is converted to other useful forms of energy such as light, heat, and sound.
IM Companion	What is Electricity?

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Instruction Module	**Electromagnets:** In this Instruction Module, students learn that an electromagnet is a temporary magnet that uses an electric current to produce a magnetic field. They observe how a simple electromagnet is made. They also examine how an electromagnet is used in a junkyard.
IM Companion	Electromagnets
Student Review	**What is Electricity?:** Students assess and review their understanding of the importance of a closed path for electrical energy and how an electric current can produce light, heat, and sound.
Student Review	**Electromagnets:** Students assess and review their understanding of electromagnets, their construction, and use in junkyard cranes.
Interactivity/ Simulation	**Investigating Circuits**: In this Simulation, students conduct an experimental investigation to compare how electric current flows through a series and parallel circuit.
WordExplorer	Electricity
Quiz	The questions in the assessment section test students' understanding of the following concepts: essential components of an electrical circuit and an electromagnet, open and closed circuits, uses of electricity, and the role of switches in an electrical circuit. The additional questions test students' ability to compare and contrast the energy transformations taking place in a light bulb and a radio, recognize energy conversions in an electric toaster, and recognize how an electromagnet works.
Journals	Journal #1 – TEKS 5.2F; 5.6B Journal #2 – TEKS 5.2D; 5.6B
Activities	Design a Switch for an Electric Circuit (Experimental Investigation) – TEKS 5.1A, B; 5.2A, B, C, D, F; 5.3B; 5.4A; 5.6B Using an Electrical Circuit to Pop a Balloon (Observational Investigation) – TEKS 5.1A, B; 5.2B, C, D, F; 5.4A, B; 5.4A, B;5.6B
STAARSmart Tests	Unit Test: 5.6 (B) - Electricity

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Unit 3: Light - 5.6 (C)	
Science Concepts TEKS : 5.6 C	
Teacher Resources	Light
Instruction Module	**Light and Matter:** In this Instruction Module students learn about light as a form of energy, its sources, and how it travels. They observe various examples of sources of light. They also compare what happens to light when it interacts with transparent, translucent, and opaque materials.
IM Companion	Light and Matter
Instruction Module	**Reflection and Refraction of Light:** In this Instruction Module, students are introduced to the reflection and refraction of light. They learn the difference between regular and diffuse reflection, and gain an understanding of how reflection helps us to see objects. They also learn that light is refracted, causing it to change speed and direction, when it travels from one medium into another.
IM Companion	Light and Matter
Instruction Module	**Lenses and Their Uses:** In this Instruction Modules, students observe what happens to light when it travels through concave and convex lenses. They learn how lenses are used in common objects such as eye glasses, magnifiers, and telescopes. They also understand the role of the lens in the human eye and a camera.
IM Companion	Lenses and Their Uses
Student Review	**Light and Matter:** Students assess and review their understanding of the sources of light energy and that it travels through transparent and translucent materials.
Student Review	**Reflection and Refraction of Light:** Students assess and review their understanding of how light energy is reflected by shiny surface and refracted when it travels from one medium into another.
WordExplorer	Light
Quiz	The questions in the assessment section test students' understanding of the following concepts: reflection, refraction, refraction through lenses and its uses, and transparent, translucent, and opaque objects. The additional questions test students' ability to identify examples of refraction and reflection, and translucent objects.
Journals	Journal #1 – TEKS 5.2D; 5.6C Journal #2 – TEKS 5.6C

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Activities	The Properties of Light – TEKS 5.1B; 5.2C, D, F; 5.3B; 5.4A; 5.6C Light Reflection and Different Surfaces (Descriptive Investigation) – TEKS 5.2B, C, D, F, G; 5.3A; 5.6A Why Rainbows Form – TEKS 5.1A; 5.2B, C, D, F, G; 5.3B; 5.4A; 5.6C Exploring the Properties of Light – TEKS 5.2C, D, F, G; 5.4A; 5.6C
Readers	**Refraction of Light:** Students are introduced to the phenomenon of the bending of light at the border of water and air and how this refraction splits white light into its colors. **Science TEKS**: 5.6(C), 5.4 **ELA TEKS:** 5.6(G), 5.7(C), 5.9(D) **Reading Levels: 2**
	Refraction at Water's Edge: This text discusses the phenomenon of the refraction of light at the boundary of air and water, and how archerfish use the bending of light to hunt for their prey. **Science TEKS**: 5.6(C) **ELA TEKS:** 5.3(B), 5.6(A, F), 5.10(A, B) **Reading Levels: 2**
	Strike or Do I mean reflection: John teaches Charlene about reflection and absorption of light, and how this causes us to see colors using baseballs and an old door as a model. **Science TEKS**: 5.6(C), 5.3(B) **ELA TEKS:** 5.6(A, B, C), 5.7(D), 5.10(A) **Reading Levels: 2**
	How Light Affects Sight: The text explains how light allows us to see through reflection and absorption, and the roles of the eyes and brain in processing visual input. **Science TEKS**: 5.6(A), 5.6(C), 5.10(A) **ELA TEKS:** 5.9(D), 5.10(A) **Reading Levels: 2**
STAARSmart Tests	Unit Test: 5.6 (C) - Light

Unit 4: Effects of Force - 5.6 (D)

Science Concepts TEKS : 5.6 (D)	
Teacher Resources	Effects Of Force
Instruction Module	**Force and Motion:** In this Instruction Module, students observe and identify the various forces that can act on a ball during a baseball game. They recognize the effects of these forces.
IM Companion	Force and Motion

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Instruction Module	**Speed and Acceleration:** In this Instruction Module, students are introduced to speed and acceleration. Students learn that speed is the distance traveled by an object in a unit of time. They understand that acceleration refers to a change in speed and/or direction of motion and is caused by force acting on the object.
IM Companion	Speed and Acceleration
Instruction Module	**Effects of Force and Mass on Motion:** In this Instruction Module, students observe how the size of the force exerted to move an object affects the distance it will travel. They also learn that an object of greater mass requires a greater force to move it a certain distance.
IM Companion	Effects of Force and Mass on Motion
Instruction Module	**Gravity and Weight:** In this Instruction Module, students learn that the gravitational force between two objects depends on the mass of the objects. They learn that weight is a measure of the force of gravity and compare the weights of an object on Earth, the Moon, and Jupiter.
IM Companion	Gravity and Weight
Instruction Module	**Friction – An Opposing Force:** In this Instruction Module, students learn that friction is a force that opposes the motion of an object. They observe an experiment and understand that friction depends on the nature of surfaces in contact.
IM Companion	Friction – An Opposing Force
Student Review	**Force and Motion:** Students assess and review their understanding of how various forces act on the motion of a ball during a baseball game.
Student Review	**Speed and Acceleration:** Students assess and review their understanding of speed and acceleration, which is the change in speed and/or direction of motion of a moving object.
Student Review	**Effects of Force and Mass on Motion:** Students assess and review their understanding of how changes in force and mass affect the motion of a moving object.
Student Review	**Gravity and Weight:** Students assess and review their understanding of the gravitational force and it affects the weight of an object on Earth, on the Moon, and on Jupiter.
Student Review	**Friction – An Opposing Force**: Students assess and review their understanding of friction and how it is affected by the nature of surfaces in contact.

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Interactivity/ Simulation	**Testing The Effects Of Force – Friction:** In this Simulation, students conduct an experiment that investigates the effect of friction on the speed of a car rolling down a ramp.
WordExplorer	Effects of Force
Quiz	The questions in the assessment section test students' understanding of the following concepts: gravity and weight, friction, and other forces that affect the motion of an object. The additional questions test students' ability to identify the relation between speed and acceleration, recognize the tools used to measure force, and recognize the effect of the surface on frictional forces.
Journals	Journal #1 – TEKS 5.2D, F; 5.6D Journal #2 – TEKS 5.1A, B; 5.2A, B, C, D, E, F, G; 5.4A; 5.6D
Activities	The Effect of Force on an Object (Experimental Investigation) – TEKS 5.1A, B; 5.2A, B, C, D, E, F, G; 5.3A; 5.4A; 5.6D How the Direction of the Force Affects the Motion of an Object (Experimental Investigation) – TEKS 5.1A, B; 5.2A, B, C, D, E, F, G; 5.3A; 5.4A; 5.6D The Effect of Mass on the Motion of an Object (Experimental Investigation) – TEKS 5.1A, B; 5.2A, B, C, D, E, F, G; 5.3A; 5.4A; 5.6D
STAARSmart Tests	Unit Test: 5.6 (D) - Effects of Force

Unit 5: Force - 3.6 (B, C)

Science Concepts TEKS: 3.6 (B, C)

Teacher Resources	Force
Instruction Module	**Force:** In this Instruction Module, students are introduced to force as a push or pull. Students observe how force can make an object at rest move, bring a moving object to rest, and change the direction an object is moving.
IM Companion	Force
Instruction Module	**Gravity and Magnetic Force:** In this Instruction Module, students are introduced to gravitational and magnetic forces. They compare and contrast the two forces, learning that gravitational force pulls on all objects while magnetic force only pulls on certain materials. They also learn that magnets can exert a pushing force on other magnets.
IM Companion	Gravity and Magnetic Force

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Student Review	**Force:** Students assess and review their understanding of how pushes and pulls change the position and motion of objects.
Student Review	**Gravity and Magnetic Force:** Students assess and review their understanding of the effects of magnetism and gravity on objects and the differences between them.
Interactivity/ Simulation	**Force and Distance:** In this Simulation, students conduct an experiment to investigate the motion and position of four carts filled with different loads and then infer which cart has the greatest mass.
WordExplorer	Force
Quiz	The questions in the assessment section test students' understanding of the following concepts: pushes and pulls, changes in position and motion, effects of force, direction of gravity, identification of forces that cause changes in an objects position or motion, and the similarities between gravity and magnetism.
Journals	Journal #1 – TEKS 3.2B; 3.6B Journal #2 – TEKS 3.2B; 3.6B
Activities	Force STEM Activity – TEKS 3.2A, B, D, F; 3.4A; 3.6B Force – Push or Pull? – TEKS 3.2C; 3.6B, C
Readers	**Force, Motion and Baseball:** Using examples from a baseball game, the text explains how forces can cause motion, change the direction of motion, and stop motion. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6 (G), 3.7(C), 3.9 (D) i,ii,iii, 3.10 (B) **Reading Levels: 3** **Gravity on the Road:** A drive through the mountains explains how a motor vehicle's engine applies force to overcome gravity on the way up the hill, and how the force of friction is used to slow down on the way down. **Science TEKS**: 3.6 (C), **ELA TEKS:** 3.6 (A), 3.7(A,G) **Reading Levels: 3** **Invisible forces-Pushes and Pulls:** A comparison of the forces of push and pull with gravity and magnetism as examples for each. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6(E) , 3.7(C) 3.9(D)i **Reading Levels: 3** **Gravity:** What is gravity, how it is useful to us, and what it would be like without gravity. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6(F, G, H), 3.9(D)ii **Reading Levels: 3** **Magnets:** The properties of magnets and how they used. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.6(H); 3.7(D); 3.9(D)i,ii,iii; 3.10(C **Reading Levels: 3**

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	Pushes and Pulls – Changes in Motion: Examples of pushes and pulls in everyday life, and how much force is used in some actions. **Science TEKS**: 3.6 (B), **ELA TEKS:** 3.3(B); 3.6 (E), (F), (G) **Reading Levels: 3** **Pushes and Pulls:** An introduction to energy, force, and motion through examples where pushes and pulls are used to move small and large objects. **Science TEKS**: 3.6(A), 3.6(B) **ELA TEKS:** 3.6(G), 3.9(D) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 3.6 (B) (C) - Force

STAARSmart Tests – Reporting Category Tests

STAARSmart Tests	Reporting Category Test: Force, Motion, and Energy

Reporting Category 3: Earth and Space

Unit 1: Fossil Fuels and Sedimentary Rocks - 5.7 (A)

Science Concepts TEKS : 5.7 (A)

Teacher Resources	Fossil Fuels and Sedimentary Rocks
Instruction Module	**Sedimentary Rock Formation:** In this Instruction Module, students learn about the processes that lead to the formation of sedimentary rocks. They also learn what leads to differences in sedimentary rocks.
IM Companion	Sedimentary Rock Formation
Instruction Module	**Formation Of Fossil Fuels:** In this Instruction Module, students learn about fossil fuels and the processes that lead to their formation.
IM Companion	Formation Of Fossil Fuels
Student Review	**Formation of Fossil Fuels:** Students assess and review their understanding of how fossil fuels were formed.

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Student Review	**Sedimentary Rocks:** Students assess and review their understanding of the formation of the various types of sedimentary rock.
WordExplorer	Fossil Fuels and Sedimentary Rocks
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: formation of sedimentary rocks and formation of fossil fuels.
Journals	Journal #1 – TEKS 5.7A Journal #2 – TEKS 5.7A Journal #3 – TEKS 5.2C, D, F, G; 5.7A
Activities	Processes that Lead to the Formation of Fossil Fuels and Sedimentary Rocks – TEKS 5.2C, D, G; 5.7A Alternative Energy Sources at Home – TEKS 5.2G; 5.4A; 5.7A
STAARSmart Tests	Unit Test: 5.7 (A) - Fossil Fuels and Sedimentary Rocks

Unit 2: Changes on Earth's Surface - 5.7 (B)

Science Concepts TEKS : 5.7 (B)	
Teacher Resources	Changes On Earth's Surface
Instruction Module	**Erosion by Water**: In this Instruction Module, students observe how water can erode Earth's surface. They conduct an experiment to determine how the slope of a surface affects erosion.
IM Companion	Erosion by Water
Instruction Module	**Water as a Force:** In this Instruction Module, students examine how water can change Earth's surface. They observe how water can be a destructive force when it weathers and erodes Earth's surface. They learn that water can also be a constructive force when deposits sediments to form new landforms such as deltas and beaches.
IM Companion	Water as a Force
Instruction Module	**Changes on the Earth's Surface**: In this Instruction Module, students learn how natural processes such as weathering, erosion, deposition and dissolving can slowly change Earth's surface and create new landforms.
IM Companion	Changes on the Earth's Surface
Student Review	**Water as a Force:** Students assess and review their understanding of how water changes Earth's surface through weathering, erosion, and deposition.

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Student Review	**Changes on the Earth's Surface:** Students assess and review their understanding of how weathering, erosion, deposition caused by wind, water, and glaciers cause slow changes to Earth's surface.
WordExplorer	Changes on Earth's Surface
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: weathering, erosion, and deposition as processes that continually change the surface of the Earth and the landforms formed by these processes.
Journals	Journal #1 – TEKS 5.2D, G; 5.7B Journal #2 – TEKS 5.2G; 5.7B
Activities	A Changing Earth – TEKS 5.2C, D, F, G; 5.3A; 5.7B Observing Erosion and Deposition (Observational Investigation) – TEKS 5.1A, B; 5.2A, B, C, D,F, G; 5.3C; 5.4A; 5.7B
Expository text passages/ activities	Our Earth's Changing Surface – *TEKS 5.1A, B; 5.2C, D, F, G; 5.4A; 5.7B*
Readers	**Ancient Plants:** Rosa learns how to classify the fossils of ancient plants as she and her grandmother explore a part of the Wyoming deserts. **Science TEKS**: 5.7(B), 5.9(D), 5.10(A) **ELA TEKS:** 5.3(B), 5.6(B, D) **Reading Levels: 2**
STAARSmart Tests	Unit Test: 5.7 (B) - Changes on Earth's Surface

Unit 4: Weather or Climate? - 5.8 (A)

Science Concepts TEKS : 5.8 (A)	
Teacher Resources	Weather Or Climate
Instruction Module	**The Sun and Weather**: In this Instruction Module, students learn how uneven heating of the Earth's surface results in variation of temperatures in the different parts of Earth. They learn that the Earth's tilted axis is the cause of the uneven heating.
IM Companion	The Sun and Weather

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Instruction Module	**Humidity:** In this Instruction Module, students are introduced to humidity. They learn that humidity refers to the amount of water vapor in the air. They understand that humidity depends on the climate of a place and on temperature.
IM Companion	Humidity
Instruction Module	**Air Pressure and Weather:** In this Instruction Module, students are introduced to air pressure. They learn about the effects of temperature on air pressure and identify regions of high and low pressures on a weather map. They understand that air moves from a region of high pressure to a region of low pressure and recognize the effects of air pressure on weather.
IM Companion	Air Pressure and Weather
Instruction Module	**Climate:** In this Instruction Module, student learns the difference between climate and weather. They learn how meteorologists collect weather data over several years to determine the climate of a place. They are also introduced to global warming and some of the possible consequences.
IM Companion	Climate
Student Review	**The Sun and Weather:** Students assess and review their understanding of how Earth's tilt causes uneven heating of the surface and variation in temperature on different parts of Earth.
Student Review	**Weather and the Climate:** Students assess and review their understanding of the difference between climate and weather, how meteorologists study them, and the effects of global warming.
Interactivity/ Simulation	**Weather vs Climate!:** In the interactive section of this module, students observe pictures of and classify them as ‘weather’ or ‘climate’ based on whether it is a short term or a long term condition.
WordExplorer	Weather or Climate?
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: weather and climate, temperature, humidity, wind, and air pressure. Some of the questions also test students’ ability to interpret data represented as a graph or a table.
Journals	Journal #1 – TEKS 5.2D, F; 5.8A Journal #2 – TEKS 5.2C, D, F; 5.8A Journal #3 – TEKS 5.2D, F; 5.8A

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	Weather or Climate? (Field Investigation) – TEKS 5.1A; 5.2C, D, G; 5.4A; 5.8A
Activities	Determining Wind Direction (Observational Field Investigation) – TEKS 5.1A; 5.2C, D, F; 5.3C; 5.4A; 5.8A Benjamin Franklin: Meteorologist – TEKS 5.2D, F, G; 5.3C; 5.8A
Readers	**Climate:** What defines climates, the factors that influence the climate of a region, and the methods scientists use to collect data to study climates around the world. **Science TEKS**: 5.8(A), 5.3(C) **ELA TEKS:** 5.3(B);5.6(E); 5.9(D)i **Reading Levels: 2**
	Climate Zones: Edwin, Nolan, and Paolo eat and dress according to the climate of their region in the world. **Science TEKS**: 5.8(A) **ELA TEKS:** 5.6(E, F), 5.9(D) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 5.8 (A) - Weather or Climate?

Unit 5: The Water Cycle - 5.8 (B)

Science Concepts TEKS : 5.8 (B)	
Teacher Resources	The Water Cycle
Instruction Module	**Water Cycle**: In this Instruction Module, students are introduced to the water cycle. They identify and describe the different parts of the water cycle including evaporation, condensation, precipitation, infiltration, and transpiration.
IM Companion	Water Cycle
Student Review	**Water Cycle:** Students assess and review their understanding of how the Sun and the ocean interact in the water cycle, through the processes of evaporation, condensation, precipitation, infiltration, and transpiration.
WordExplorer	The Water Cycle
Quiz	The questions in the assessment and additional assessment section test students' understanding and ability to identifying the different processes of the water cycle.
Journals	Journal #1 – TEKS 5.2C, D, F; 5.8B Journal #2 - TEKS 5.2.D, F; 5.8B

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Activities	The Water Cycle (Descriptive Investigation) – TEKS 5.1A, B; 5.2 A, B, C, D, F; 5.3A; 5.4A; 5.8B
Expository text passages/ activities	The Rainiest Place in the United States – TEKS 5.1B; 5.3A, C; 5.4A; 5.8B
STAARSmart Tests	Unit Test: 5.8 (B) - The Water Cycle

Unit 6: Earth Cycles - 5.8 (C)

Science Concepts TEKS : 5.8 (C)	
Teacher Resources	Earth Cycles
Instruction Module	**The Day and Night Cycle**: In this Instruction Module, students are introduced to patterns in the natural world. They learn that one such pattern, the day and night cycle, is caused by the rotation of Earth on its axis.
IM Companion	The Day and Night Cycle
Instruction Module	**Cycle of the Seasons:** In this Instruction Module, students learn that the cycle of seasons is a result of Earth revolving around the Sun on its tilted axis. They observe and understand that when the Northern hemisphere is tilted toward the Sun, it experiences summer and when it is tilted away from the Sun, it experiences winter.
IM Companion	Cycle of the Seasons
Instruction Module	**Phases of the Moon:** In this Instruction Module, students are introduced to the phases of the Moon. They observe that the Moon's revolution around Earth causes us to see different parts of its lit surface. They learn the different names of each phase and also understand that waxing and waning are terms used to describe the apparent growing and shrinking of the lit parts of the Moon.
IM Companion	Phases of the Moon
Student Review	**The Day and Night Cycle:** Students assess and review their understanding of how the Earth's rotation on its axis causes day and night, as well as the apparent movement of the Sun across the sky about every 24 hours.
Student Review	**Cycle of the Seasons:** Students assess and review their understanding of how Earth's tilted axis and its revolution around the Sun causes opposite seasons in the hemispheres.

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WordExplorer	Earth Cycles
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: phases of the Moon, the lunar cycle, and the effects of rotation and revolution of Earth.
Journals	Journal #1 – TEKS 5.2D, F; 5.8C Journal #2 – TEKS 5.2D, F; 5.8C Journal #3 – TEKS 5.2D, F; 5.8C
Activities	Day and Night and the Movement of the Sun Across the Sky – TEKS 5.2D, F, G; 5.3B; 5.4A; 5.8C
Readers	**Earth, Moon and Sun:** The movements of Earth and Moon, their relative movements to each other and the Sun. **Science TEKS**: 4.8(C), 5.8 (C) **ELA TEKS:** 4.8(C), 5.8 (C), .9 (D)(iii) , 5.9(D)(iii)(2019) **Reading Levels: 3**
STAARSmart Tests	Unit Test: 5.8 (C) - Earth Cycles

Unit 7: Characteristics of the Sun, Moon, & Earth - 5.8 (D)

Science Concepts TEKS : 5.8 (D)

Teacher Resources	Characteristics Of The Sun Moon And Earth
Instruction Module	**Characteristics of Earth**: In this Instruction Module, students are introduced to the characteristics of Earth such as its core, its crust, the gases in its atmosphere, its gravitational pull, and the existence of water in all three states. Students recognize these characteristics help support life on Earth.
IM Companion	Characteristics of Earth
Instruction Module	**Comparing the Moon to Earth:** In this Instruction Module, students compare the size, mass, gravitational pull, and atmosphere of the Earth and the Moon. They compare and contrast the lunar surface to Earth's surface and understand that the forces that cause weathering and erosion on Earth do not exist on the Moon.
IM Companion	Comparing the Moon to Earth

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Instruction Module	**Characteristics of the Sun:** In this Instruction Module, students are introduced to the characteristics of the Sun such as its temperature, composition and surface features. They compare the Sun's mass and size with that of Earth and learn about sunspots, solar flares and the effect of the Sun's strong gravitational pull.
IM Companion	Characteristics of the Sun
Student Review	**Comparing the Moon to Earth:** Students assess and review their understanding of the differences in the size, mass, gravitational pull, and atmosphere of Earth and the Moon.
Student Review	**Characteristics of the Sun:** Students assess and review their understanding of some of the features of the Sun and the difference in its mass compared to Earth.
WordExplorer	Characteristics of the Sun, Moon, and Earth
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: characteristic features of the Sun, the Moon, and the Earth, comparisons of the three based on landforms, compositions of the atmosphere, and gravity. The additional questions also test students' ability to interpret information from a graph.
Journals	Journal #1 – TEKS 5.2D, F; 5.8D Journal #2 – TEKS 5.2D, F; 5.8D
Activities	Characteristics of the Sun, Moon, and Earth – TEKS 5.2C, D, F; 5.8D
STAARSmart Tests	Unit Test: 5.8 (D) - Characteristics of the Sun, Moon & Earth

Unit 8: Soil Properties and Experiments 4.7 (A)

Science Concepts TEKS : 4.7 A

Teacher Resources	Soil Properties And Experiments
Instruction Module	**Properties of Soil**: In this Instruction Module, students learn about the different components that make up soil. They compare how the properties of color, texture, and composition are used to identify soil types. They also investigate and determine the soil best suited for the growth of a tomato plant.
IM Companion	Properties of Soil

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Instruction Module	**Soil Water Retention:** In this Instruction Module, students observe an experiment and compare the water retention capacities of different soil types such as sand, silt, clay, and loam. They learn about the steps of the scientific method used when performing an experiment.
IM Companion	Soil Water Retention
Student Review	**Properties of Soil:** Students assess and review their understanding of properties of soils that include color, texture, capacity to retain water, and the ability to support plant growth.
Interactivity/ Simulation	**Soil Properties: How Much Air Is In There?**: In this Simulation, students conduct an experiment that investigates the volume of air bubbles displaced by different soil samples.
WordExplorer	Soil Properties and Experiments
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: properties of soil such as color, texture, water retention, amount of humus, sizes of soil particles, types of soils, organisms present in the soil, and experiments to demonstrate the different soil properties.
Journals	Journal #1 – TEKS 4.2F; 4.7A Journal #2 – TEKS 4.2F; 4.7A
Activities	Activity 1: Soil Properties and Experiments – TEKS 4.2D, F; 4.3A; 4.7A Activity 2: Soil Properties and Experiments (Descriptive Investigation) – TEKS 4.1A, B; 4.2A, B, C, D, F; 4.4A; 4.7A Activity 3: Observing the Properties of Sand Using a Microscope (Descriptive Investigation) – TEKS 4.1A, B; 4.2B; 4.4A; 4.7A
Expository text passages/ activities	Tools Scientists Use: Microscopes – TEKS 4.1A, B; 4.2B, C, D, F; 4.4A; 4.7A
STAARSmart Tests	Unit Test: 4.7 (A) - Soil Properties and Experiments

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Unit 9: Conserving Resources - 4.7 (C)

Science Concepts TEKS : 4.7 (C)

Teacher Resources	Conserving Resources
Instruction Module	**Renewable Resources**: In this Instruction Module, students learn that renewable resources are natural resources plentiful in nature. They identify examples of renewable resources and gain an understanding of why these resources are essential for the survival of life on Earth.
IM Companion	Renewable Resources
Instruction Module	**Nonrenewable Resources:** In this Instruction Module, students learn that nonrenewable resources are natural resources that exist in limited quantities in nature. They identify examples of nonrenewable resources and learn how these resources are used in everyday life.
IM Companion	Nonrenewable Resources
Instruction Modules	**Conservation of Natural Resources:** In this Instruction Module, students learn what happens when natural resources are depleted and recognize the importance of conservation. They also examine different ways to conserve these resources.
IM Companion	Conservation of Natural Resources
Student Review	**Renewable Resources:** Students assess and review their understanding of renewable resources that include air, plants, water, and animals.
Student Review	**Nonrenewable Resources:** Students assess and review their understanding of nonrenewable resources that include coal, oil, and natural gas
Student Review	**Conservation of Natural Resources:** Students assess and review their understanding of the importance of conserving natural resources and some ways to conserve them.
Interactivity/ Simulation	**Conserving Resources**: In the Interactive section of this module, students classify and group resources as renewable and nonrenewable resources. Then, they identify which nonrenewable resource is used the most for a certain purpose that is mentioned.
WordExplorer	Conserving Resources

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Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: renewable and nonrenewable resources, properties of renewable and nonrenewable resources, conservation and actions that help conserve natural resources. The additional questions also test students' ability to recognize the importance of replacing fossil fuels with renewable energy resources.
Journals	Journal #1 – TEKS 4.7C Journal #2 – TEKS 4.7C
Readers	**Resources**: The importance of conserving resources, and how alternative resources, such as solar power, can make a difference. **Science TEKS** 4.7 (C), 4.1 (B), **ELA TEKS** 4.11(C), 4.9 (D) (iii)(2019) **Reading levels:** 3
STAARSmart Tests	Unit Test: 4.7 (C) - Conserving Resources

Unit 10: Energy from the Sun and Weather 4.8 (A, B)

Science Concepts TEKS : 4.8 (A, B)	
Teacher Resources	Energy From The Sun And Weather
Instruction Module	**Sun's Energy In Food**: This Instruction Module, students learn that the main source of energy they need to grow and survive comes from the Sun. They observe the path of the Sun's energy through plants and animals into our food.
IM Companion	Sun's Energy In Food
Instruction Module	**Sun's Energy and the Water Cycle:** In this Instruction module, students learn how heat energy from the Sun drives the water cycle on Earth.
IM Companion	Sun's Energy and the Water Cycle
Instruction Module	**Weather Maps:** In this Instruction Module, students are introduced to the information meteorologist's record on weather maps. They learn that symbols on a weather map represent high pressure, low pressure, and cold, warm, and stationary fronts. They also learn how each of these conditions affects the weather of a place.
IM Companion	Weather Maps

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Student Review	**Sun's Energy and the Water Cycle:** Students assess and review their understanding of the water cycle and the role of the Sun as a major source of energy in this process.
Student Review	**Weather Maps:** Students assess and review their understanding of how weather is measured, recorded, and presented on weather maps using symbols and keys.
Interactivity/ Simulation	**The Vital Sun**: In the Interactive section of this module, students arrange pictures in the correct sequence to depict how the Sun's energy is responsible for the weather, formation of fossil fuels, and the food we eat.
WordExplorer	Energy from the Sun and Weather
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: the Sun as the primary source of energy on Earth, responsible for the formation of fossil fuels and the food we eat. The additional questions also test students' understanding of symbols used on weather maps, cold and warm fronts, high and low pressures, and the forms of precipitation.
Journals	Journal #1 – TEKS 4.8B Journal #2 – TEKS 4.2B, D; 4.8A
Activities	Using Weather Maps to Predict Weather – TEKS 4.2B, C, D; 4.3B, C; 4.8A Energy from the Sun and Weather (Descriptive Investigation) – TEKS 4.1A, B; 4.2B, C, D, F; 4.3C; 4.4A; 4.8B Creating a Weather Map – TEKS 4.2B, C, D; 4.3B; 4.4A; 4.8A
Expository text passages/ activities	The Rainiest Place in the United States
Readers	**The Water Cycle: Simple or Complex?**: An explanation of the complexity of the water cycle, how it affects human life, and the impact of human actions on the water cycle. **Science TEKS** 4.8(B), 4.3(B), **ELA TEKS** 4.11(C), 4.9 (D) (iii)(2019) **Reading levels:** 2
	Hygrometer: An introduction to humidity and the different types of hygrometers scientists use to measure humidity. **Science TEKS** 4.8(A),4.4, **ELA TEKS** 4.11(C), 4.9(D)iii (2019) **Reading levels:** 1

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	The Water Cycle: The different stages of the water cycle in more detail, including transpiration and runoff. **Science TEKS** 4.8(B),4.4, **ELA TEKS** 4.11(C), 4.9(D)iii (2019) **Reading levels:** 2
	Why is the Ocean Salty?: Seasoned with 'salty' idioms, the text explains the process of how salt enters the oceans. **Science TEKS** 4.7(B), **ELA TEKS** 4.11(A) 4.9(D)i (2019) **Reading levels:** 2
STAARSmart Tests	Unit Test: 4.8 (A) (B) - Energy from the Sun and Weather

Unit 11: Recognizing Patterns in Changes 4.8 (C)

Science Concepts TEKS : 4.8 (C)	
Teacher Resources	Recognizing Patterns Of Change
Instruction Module	**What are Patterns?**: In this Instruction Module, students learn that a pattern is a set of events or design that repeats over and over again. They observe patterns in nature such as the design of a spider web, the day and night pattern, and seasonal weather patterns.
IM Companion	What are Patterns?
Instruction Module	**Seasonal Patterns, Weather, and Climate:** In this Instruction Module, students observe seasonal patterns. They recognize that seasons are accompanied by changes in weather. They also learn that climate is the pattern of weather in a place over several years.
IM Companion	Seasonal Patterns, Weather, and Climate
Instruction Module	**Patterns of the Sun:** In this Instruction Module, students are introduced to the daily patterns of Sun including sunrise and sunset, its apparent movement across the sky during a day, and how it causes patterns in shadows. They also observe how the position of the Sun in the sky changes during the different seasons and affects the length of the day and night.
IM Companion	Patterns of the Sun
Instruction Module	**Patterns Caused by the Moon:** In this Instruction Module, students learn about the lunar cycle and understand what causes the different phases of the Moon.
IM Companion	Patterns Caused by the Moon

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Student Review	**Seasonal Patterns, Weather, and Climate:** Students assess and review their understanding of the patterns of the seasons and of weather over time, which forms the climate of a particular place.
Student Review	**The Sun and Shadows:** Students assess and review their understanding of the change in the Sun's position in the sky during different seasons and the effects of the Sun's movement on shadows during daytime**.**
Student Review	**Patterns Caused by the Moon:** Students assess and review their understanding of the phases of the lunar cycle.
Interactivity/ Simulation	**Recognizing Patterns in Changes**: In the Interactive section of this module, students arrange pictures in the correct sequence to depict patterns in the seasons, patterns in the apparent movement of the Sun based on the observation of shadows at different times of the day, and patterns in the lunar cycle. **Shadows And Seasons:** In this Simulation, students conduct an experiment to investigate if the length of a shadow follows a pattern throughout the year.
WordExplorer	Recognizing Patterns in Changes
Quiz	The questions in the assessment section test students' understanding of the following concepts: patterns in weather, day and night, and lunar cycle. The additional questions test students' ability to interpret and draw conclusions from data given in the form of graphs, tables, and chart.
Journals	Journal #1 – TEKS 4.2A, F; 4.8C Journal #2 – TEKS4.2F; 4.8C
Activities	Recognizing Patterns in Changes – TEKS 4.1A; 4.2B, C, D, F; 4.4A; 4.8C The Moon and Tides – TEKS 4.2B, C, D; 4.8C
Readers	**How Plants sense the Seasons?:** How plants like the Christmas Cactus know the seasons by detecting changes in the length of daylight. **Science TEKS** 4.8 (C), **ELA TEKS** 4.11(A),4.9(D)i (2019) **Reading levels:** 1 **Phases of the Moon:** All about the Moon; its light, its phases, and what manned missions to the Moon taught us. **Science TEKS** 4.3(C), 4.8 (C), **ELA TEKS** 4.11(A),4.9(D) i **Reading levels:** 1 **Earth, Moon and Sun:** All about the Moon; its light, its phases, and what manned missions to the Moon taught us. **Science TEKS** 4.8(C), 5.8 (C), **ELA TEKS** 4.11(C), 5.11(C), 4.9 (D)(iii) , 5.9(D)(iii) (2019) **Reading levels:** 3
STAARSmart Tests	Unit Test: 4.8 (C) - Recognizing Patterns in Changes

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Unit 12: Earth's Ever-changing Surface 3.7 (B)

Science Concepts TEKS : 3.7 (B)

Teacher resources	Earth's Ever-changing Surface
Instruction Module	**Tectonic Plates and Earthquakes**: In this Instruction Module, students are introduced to earthquakes, what causes them to occur, and how they can change Earth's surface rapidly. They learn about the different types of faults caused by earthquakes. They also recognize that earthquakes can occur on land and underwater.
IM Companion	Tectonic Plates and Earthquakes
Instruction Module	**Volcanic Eruptions:** In this Instruction Module, students learn how volcanic eruptions can quickly change Earth's surface. They learn the difference between magma and lava, and recognize some of the positive and negative effects of volcanic eruptions.
IM Companion	Volcanic Eruptions
Instruction Module	**Glaciers – A Natural Force:** In this Instruction Module, students learn what a glacier is and how a glacier's movement affects the shape of Earth's surface.
IM Companion	Glaciers – A Natural Force
Student Review	**Tectonic Plates and Earthquakes:** Students assess and review their understanding of the different types of earthquakes and how they change Earth's surface on land and underwater.
Student Review	**Volcanic Eruptions:** Students assess and review their understanding of what happens during a volcanic eruption and how volcanoes affect Earth's surface, both positively and negatively.
Interactivity/ Simulation	**Earth's Ever-Changing Surface**: In the interactive section of this module, students are presented with "before" and "after" pictures of landforms changed by earthquakes, volcanoes, and glaciers. The students identify the natural forces that changed them. **How Volcanoes Change Earth's Surface**: In this Simulation, students conduct an experiment to investigate how the type of magma affects what kind of volcano will form.
WordExplorer	Earth's Ever-Changing Surface
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: the various natural forces that change the surface of the Earth and the features that they form, including earthquakes, landslides, avalanches, and tsunamis.

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Journals	Journal #1 – TEKS 3.7B Journal #2 – TEKS 3.7B
Activities	Earth's Changing Surface: Changes that Occur Quickly – TEKS 3.2B, D, F; 3.7B
Readers	**Tsunami:** A brief introduction to tsunamis and the damage they can cause. **Science TEKS** 3.7 (B) , **ELA TEKS** 3.12, 3.9 (D) (2019) **Reading levels:** 3
STAARSmart Tests	Unit Test: 3.7 (B) - Earth's Ever-changing Surface

Unit 13: The Solar System 3.8 (D)

Science Concepts TEKS : 3.8 (D)	
Teacher Resources	The Solar System
Instruction Module	**The Planets**: In this Instruction Module, students are introduced to the eight planets of our solar system—Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Students are encouraged to use mnemonics to help recall all the names of the planets.
IM Companion	The Planets
Instruction Module	**Inner Planets:** In this Instruction Module, students learn about the inner planets - Mercury, Venus, Earth, and Mars. They compare and contrast the planet's distinctive features, such as nature of surface, atmosphere, size, and position in relation to the Sun.
IM Companion	Inner Planets
Instruction Module	**Outer Planets**: In this Instruction Module, students learn about the outer planets - Jupiter, Saturn, Uranus, and Neptune. They compare and contrast the planet's distinctive features, such as size, atmosphere, rings, and position in relation to the Sun. Students also learn that the asteroid belt separates the inner planets from the outer planets and understand why Pluto is no longer considered a planet.
IM Companion	Outer Planets
Instruction Module	**The Sun:** In this Instruction Module, students are introduced to the Sun as the object in the center of our solar system. Students learn about the composition of the Sun, its different layers, and the process of fusion that makes the Sun the main source of energy on Earth. Students are also introduced to sunspots.
IM Companion	The Sun

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Student Review	**Planets in Our Solar System:** Students assess and review their understanding of the distinctive features of the planets in the solar system and their positions in relation to the Sun.
Interactivity/ Simulation	**The Solar System!**: In the Solar System interactivity, students identify the planets in our solar system and match them with their names.
WordExplorer	The Solar System
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: planets and their positions in relation to the Sun, and the characteristics of the Sun.
Journals	Journal #1 – TEKS 3.8D Journal #2 – TEKS 3.8D
Activities	The Solar System: Order of the Planets – TEKS : 3.2B, D, F; 3.8D The Solar System – Planet Identification – TEKS 3.2C, D, F; 3.8D
STAARSmart Tests	Unit Test: 3.8 (D) - The Solar System

STAARSmart Tests – Reporting Category Tests

STAARSmart Tests	Reporting Category Test: Earth and Space Science

Reporting Category 4: Organisms and Environments

Unit 1: Organisms and their Environment - 5.9 (A)

Science Concepts TEKS : 5.9 (A)	
Teacher Resources	Organisms And Their Environments
Instruction Module	**Competition for Resources**: In this Instruction Module, students observe and gain and understanding that organisms must compete with each other for resources within their ecosystem.
IM Companion	Competition for Resources
Instruction Module	**Relationships Among Organisms:** In this Instruction Module, students are introduced to some of the relationships between organisms in an ecosystem. They examine how organisms are linked to one another based on who eats what and observe how these relationships are represented in food chains and food webs. They evaluate how the

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	decline of one population in an ecosystem affects the entire ecosystem. They also learn some of the ways that plants depend on animals for survival.
IM Companion	Relationships Among Organisms
Student Review	**Student Review - Competition for Resources:** Students assess and review their understanding of how organisms in an ecosystem compete with each other for limited resources to survive.
Student Review	**Relationships Among Organisms:** Students assess and review their understanding of how organisms in an ecosystem are dependent on each other and the environment for their survival.
Interactivity/ Simulation	**Build an Ecosystem!**: In the interactive section of this module, students apply their understanding of the basic needs of organisms to construct artificial environments such as terrariums and aquariums. They select an organism and then select the components that the organism would need in order to survive.
WordExplorer	Organisms and their Environment
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: the living and nonliving components of an ecosystem, food chains and food webs, and types of relationships between organisms in an ecosystem.
Journals	Journal #1 – TEKS 5.9A Journal #2 – TEKS 5.9A Journal #3 – TEKS 5.9A
Activities	Organisms' Interactions within their Ecosystem (Observational Investigations) – TEKS 5.1A, B; 5.2B, C, D, F, G; 5.3A; 5.4A; 5.9A Predator vs. Prey (Observational Field Investigation) – TEKS 5.1A, B; 5.2B, C, D, E, F, G; 5.4A; 5.9A
Expository text passages/ activities	Animal Interactions: Sea Anemones and Clownfish – TEKS 5.1A, B; 5.2C; 5.4A; 5.9A; 5.10A
STAARSmart Tests	Unit Test: 5.9 (A) - Organisms and their Environment

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Unit 2: Energy Flow through Food Webs - 5.9 (B)

Science Concepts TEKS : 5.9 (B)

Teacher Resources	Energy Flow Through Food Webs
Instruction Module	**Energy from the Sun**: In this Instruction Module, students are introduced to the importance of the Sun's energy in ecosystems. They learn how plants convert the Sun's energy into chemical energy during photosynthesis and that animals directly or indirectly depend on this chemical energy for food. They also learn that the Sun's energy drives the water cycle.
IM Companion	Energy from the Sun
Instruction Module	**Energy Flow in an Ecosystem:** In this Instruction Module, students learn how food chains, food webs and energy pyramids are used to represent the flow of energy in an ecosystem.
IM Companion	**Energy Flow in an Ecosystem**
Student Review	**Energy Flow in an Ecosystem:** Students assess and review their understanding of how energy from the Sun is transferred through a food chain or food web by the producers, consumers, and decomposers in an ecosystem.
Interactivity/ Simulation	**Food Web Flow!**: In the interactive section of the module, students arrange organisms of different food chains in the correct order of energy flow and form food webs by identifying the correct links between food chains.
WordExplorer	Energy Flow through Food Webs
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: energy flow through food chains and food webs, different types of consumers based on food preferences, and energy pyramids.
Journals	Journal #1 – TEKS 5.2C, G; 5.9B Journal #2 – TEKS 5.2G; 5.9B Journal #3 – TEKS 5.2C, D, F, G; 5.9B
Activities	Energy Flow through Food Webs – TEKS 5.2D, F, G; 5.9B A Meadow Food Web – TEKS 5.2C, D, G; 5.9B
Expository text passages/ activities	Organisms and Environments: The Brown Tree Snake – TEKS 5.1A, B; 5.2C, D, F; 5.4A; 5.9B

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Readers	**Aquatic Food Web:** An explanation of a typical aquatic food webs and the organisms involved. **Science TEKS** 5.9(B) , **ELA TEKS** 4.3(B), 4.6(D, E), 4.7(G), 4.9(D) **Reading levels:** 1
STAARSmart Tests	Unit Test: 5.9 (B) - Energy Flow through Food Webs

Unit 3: Changes in Ecosystems - 5.9 (C)

Science Concepts TEKS : 5.9 (C)	
Teacher Resources	Changes In Ecosystems
Instruction Module	**How Organisms Change Their Ecosystems**: In this Instruction Module, students learn that organisms can cause changes to their ecosystem. They examine how changes made by the prairie dog in the Blackland Prairie Ecosystem can benefit other organisms. They also evaluate how an increase or decrease in populations within an ecosystem affects the entire ecosystem.
IM Companion	How Organisms Change Their Ecosystems
Instruction Module	**Human Impacts on Ecosystems:** In this Instruction Module, students understand how human activities can impact ecosystems. They examine how hunting, farming, and the construction of roadways affected the Blackland Prairie ecosystem. They also learn about some of the different steps humans can take to minimize damage and restore ecosystems.
IM Companion	Human Impacts on Ecosystems
Student Review	**How Organisms Change Their Ecosystems:** Students assess and review their understanding of how an organism can effect change in an ecosystem, such as the prairie dog in the Blackland Prairie ecosystem.
Student Review	**Human Impacts on Ecosystems:** Students assess and review their understanding of how human activities, such as hunting, farming, and the construction of roadways, affect ecosystems.
Interactivity/ Simulation	**Ecosystem Harmony:** In the interactive section of the module, students apply their understanding of factors affecting ecosystem stability to predict the impacts of different changes on an estuary ecosystem.
WordExplorer	Changes in Ecosystems

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Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: types of organisms that make up a food chain, namely producers, primary consumers, secondary consumers and decomposers, impacts of introducing exotic species in an ecosystem, impacts of altering the composition of organisms in an ecosystem, negative and positive impacts of human activities on ecosystems.
Journals	Journal #1 – TEKS 5.9C Journal #2 – TEKS 5.9C Journal #3 – TEKS 5.2C, D, F; 5.9C
Activities	Predicting Effects of Changes to an Ant Farm Ecosystem – TEKS 5.1A, B; 5.2B, C, D, F, G; 5.4A; 5.9C
Readers	**A Restoration Story:** The text explains the impact of human activity on wetlands Lake Hancock in Polk County, Florida and how the local agencies are trying to restore them. **Science TEKS** 5.3(C), 5.9(C), **ELA TEKS** 5.3(B), 5.6(F), 5.7(G), 5.9(D) **Reading levels**: 1
	The Dust Bowl: The causes of the devastating drought infamously known as Dust Bowl and the preventive measure being taken to prevent it from happening again. **Science TEKS** 5.9(C), **ELA TEKS** 5.11(A), 5.7(D) (2019) **Reading levels**: 1
	Deforestation of Haiti: An explanation of how deforestation worsened the situation of Haiti during Hurricane Matthew. **Science TEKS** 5.9(C), **ELA TEKS** 5.3 (B), 5.6(F), 5.10(A, B, C) **Reading levels**: 1
	Water Pollution: Drastic effects of water pollution on the environment, such as algal blooms, and how they water pollution is caused. **Science TEKS** 5.9(C), 7.8(C), 8.11(C) **ELA TEKS** 6.10, 7.10, 8.10 (D), 6.5, 7.5, 8.5 (H) 2019 **Reading levels**: 1
STAARSmart Tests	Unit Test: 5.9 (C) - Changes in Ecosystems

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Unit 3 : Learning from the Past - 5.9 (D)

Science Concepts TEKS : 5.9 (D)	
Teacher Resources	Learning From The Past
Instruction Module	**How are Fossils Formed?:** In this Instruction Module, students learn how sedimentary rocks and the fossils found within them are formed over millions of years.
IM Companion	How are Fossils Formed?
Instruction Module	**Clues About Past Environments:** In this Instruction Modules, students observe examples of trace fossils and make inferences about environmental conditions that existed in the past. They learn how such fossils provide evidence of changes to Earth's surface over time.
IM Companion	Clues About Past Environments
Instruction Module	**Evidence of Pangaea:** In this Instruction Module, students examine evidence that suggests that all the continents were joined to form one giant land mass called Pangaea in the past.
IM Companion	Evidence of Pangaea
Student Review	**How are Fossils Formed?:** Students assess and review their understanding of how fossils are evidence of past living organisms and the nature of the environments through their formation.
Student Review	**Clues About Past Environments:** Students assess and review their understanding of how trace fossils can be used to make inferences about past environmental conditions.
Student Review	**Evidence of Pangaea:** Students assess and review their understanding of the evidence that suggests all present-day continents were once a giant landmass called Pangaea.
WordExplorer	Learning from the Past
Quiz	The questions in the assessment and additional assessment section test students' understanding of the following concepts: sequence of sedimentary rock layers, using fossils to understand past environmental conditions, types of fossils, and plate tectonics.
Journals	Journal #1 – TEKS 5.9D, Journal #2 – TEKS 5.9D Journal #3 – TEKS 5.9D
Activities	Fossils as Evidence of the Past– TEKS 5.9 D

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Readers	**Ancient Plants:** Rosa learns how to classify the fossils of ancient plants as she and her grandmother explore a part of the Wyoming deserts. **Science TEKS**: 5.7(B), 5.9(D), 5.10(A) **ELA TEKS:** 5.3(B), 5.6(B, D) **Reading Levels: 2**
STAARSmart Tests	Unit Test: 5.9 (D) - Learning from the Past

Unit 5: Comparing Structures and Functions of Similar Organisms - 5.10 (A)

Science Concepts TEKS : 5.10 (A)	
Teacher Resources	Comparing Structures and Functions of Similar Organisms
Instruction Module	**Comparing Structures and Functions of Similar Organisms**: In this Instruction Module, students observe and compare the structures of similar organisms that inhabit different environments. They learn how different structures and their functions help an organism survive in its natural environment.
IM Companion	Comparing Structures and Functions of Similar Organisms
Student Review	**Comparing Structures and Functions of Similar Organisms:** Students assess and review their understanding of various structures and their functions that will help different organism survive on land or in water.
WordExplorer	Comparing Structures and Functions of Similar Organisms
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: structures and functions of similar organisms inhabiting different environments, how the structures help an organism survive in its environment.
Journals	Journal #1 – TEKS 5.2D, F; 5.10A
Activities	Structures and Functions of Organisms – TEKS 5.2D; 5.3D; 5.10A
Expository text passages/ activities	Insect Structures and Functions – TEKS 5.1A, B; 5.2A, B, D, F; 5.3C; 5.4A; 5.10A
Readers	**Ancient Plants:** Rosa learns how to classify the fossils of ancient plants as she and her grandmother explore a part of the Wyoming deserts. **Science TEKS**: 5.7(B), 5.9(D), 5.10(A) **ELA TEKS:** 5.3(B), 5.6(B, D) **Reading Levels: 2**

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	How Light Affects Sight: The text explains how light allows us to see through reflection and absorption, and the roles of the eyes and brain in processing visual input. **Science TEKS**: 5.6(A), 5.6(C), 5.10(A) **ELA TEKS:** 5.9(D), 5.10(A) **Reading Levels: 2**
STAARSmart Tests	Unit Test: 5.10 (A) - Comparing Structures and Functions of Similar Organisms

Unit 6: Inherited Traits, Learned Characteristics - 5.10 (B)

Science Concepts TEKS : 5.10 (B)	
Teacher Resources	Inherited Traits VS Learned Characteristics
Instruction Module	**Inherited Traits**: In this Instruction Module, students learn about inherited traits. They examine different inherited traits in plants and animals. They also observe how these traits help organisms survive in their environment.
IM Companion	Inherited Traits
Instruction Module	**Learned Characteristics:** In this Instruction Module, students understand what learned behaviors are and how they differ from inherited traits. They observe and identify examples of learned behaviors in animals and humans.
IM Companion	Learned Characteristics
Student Review	**Inherited Traits:** Students assess and review their understanding of inherited traits of plants and animals, and how they help an organism adapt to its environment.
Student Review	**Learned Characteristics:** Students assess and review their understanding of what learned characteristics are and how they are different from inherited traits.
Interactivity/ Simulation	**Inherited or Learned? :** In the interactive section of this module, students identify whether the different pictures that are presented show an inherited trait or a learned characteristic.
WordExplorer	Inherited Traits vs Learned Characteristics
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: inherited traits in humans, plants and animals, learned characteristics in humans and

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	animals, and differences between inherited traits and learned characteristics.
Journals	Journal #1 – TEKS 5.2D, F; 5.10B Journal #2 – TEKS 5.2D, F; 5.10B
Activities	Inherited vs. Acquired Traits – TEKS 5.1A, B; 5.2C, D, F, G; 5.10B
STAARSmart Tests	Unit Test: 5.10 (B) - Inherited Traits, Learned Characteristics

Unit 8: Habitats and Organisms - 3.9 (A)	
Science Concepts TEKS : 3.9 (A)	
Teacher Resources	Habitats and Organisms
Instruction Module	**Components of an Ecosystem**: In this Instruction Module, students learn that an ecosystem is made up of all the living and nonliving components that interact with one another in a particular area.
IM Companion	Components of an Ecosystem
Instruction Module	**Population and Habitat:** In this Instruction Module, students examine a pond environment to learn about populations and habitats.
IM Companion	Population and Habitat
Instruction Module	**Basic Needs of Organisms**: In this Instruction Module, students are introduced to the basic needs plants and animals must meet in order to survive. They learn basic needs are best met in an organism's habitat. They also understand why the natural habitat of one organism may be unsuitable for an organism from a different habitat.
IM Companion	Basic Needs of Organisms
Instruction Module	**Competing for Habitat Resources:** In this Instruction Module, students study a pond habitat to understand that organisms compete with each other to fulfill their basic needs. They also learn how overpopulation in a habitat impacts the resources available and ultimately causes changes in the habitat.
IM Companion	Competing for Habitat Resources

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Student Review	**Population and Habitat:** Students assess and review their understanding of how the physical characteristics of an environment support populations and communities within its ecosystem.
Interactivity/ Simulation	**Pond Dwellers:** In the interactive section of this module, students apply their understanding of the type of organisms that make up a pond community to identify which organisms belong to a pond ecosystem and which ones do not.
WordExplorer	Habitats and Organisms
Quiz	The questions in the assessment and additional assessment sections test student understanding of the following concepts: organisms found in different ecosystems, basic needs of organisms, populations, and communities, components of an ecosystem, and interactions between organisms in an ecosystem.
Journals	Journal #1 – TEKS 3.2B, F; 3.9A Journal #2 – TEKS 3.2F; 3.9A
Activities	Habitats and Organisms – TEKS 3.2B, F; 3.9A Observing Organisms in a Water Sample Using a Microscope- TEKS 3.1A, B; 3.2B; 3.4A; 3.9A Organisms and Their Environments – TEKS 3.1 B; 3.2 B, C, D, F; 3.3B, C; 3.9 A
Expository text passage/ activities	The Brown Tree Snake TEKS 3.1A, B; 3.2 A, B, F; 3.4 A; 3.9 A Animals Need Homes TEKS: 3.1 A, B, C; 3.2 A; 3.3 A; 3.4 A; 3.9 A, B, C
Readers	**Coral Reefs and Ocean Diversity:** An explanation of how coral reefs provide food and shelter to other creatures, protect the shoreline, and provide economic benefits. It highlights the importance of protecting the coral reefs. **Science TEKS:** 3.9(A), 7.10(A), 8.11 (C), **ELA TEKS:** 3.9(D)i, ii, iii, 3.10(A, B, C) **Reading Levels**: 1
	Rocks and Soil: The definition, types, and examples of rocks and soil, and their differences. **Science TEKS**: 3.7(A), 3.9(A) **ELA TEKS:** 3.13(A), 3.6 (G)(2019) **Reading Levels: 1**
STAARSmart Tests	Unit Test: 3.9 (A) - Habitats and Organisms

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Unit 9: Growth and Change - 3.10 (B)

Science Concepts TEKS : 3.10 B

Teacher Resources	Growth and Change
Instruction Module	**Simple Life Cycles:** In this Instruction Module, students learn how the life cycle of an organism includes its birth, growth, and reproduction. They understand what a simple life cycle is and are shown examples of organisms that have simple life cycles.
IM Companion	Simple Life Cycles
Instruction Module	**Metamorphosis:** In this Instruction Module, students observe and learn about the different stages in the life cycle of a lady beetle and a frog, two organisms that undergo metamorphosis. They recognize the structural differences between the juvenile and adult stages during metamorphosis.
IM Companion	Metamorphosis
Instruction Module	**Plant Growth Cycles:** In this Instruction Module, students learn about the life cycles of plants. They learn that plants can be classified as annuals, biennials, or perennials depending on whether they complete their life cycle in one, two, or many growing seasons respectively.
IM Companion	Plant Growth Cycles
Student Review	**Simple Life Cycles:** Students assess and review their understanding of the simple life cycle of organisms that include the stages of birth, growth, and reproduction.
Student Review	**Metamorphosis:** Students assess and review their understanding of the different stages of metamorphosis in the life cycles of a lady beetle and frog.
Student Review	**Plant Growth Cycles:** Students assess and review their understanding of why plants are classified as annuals, biennials, or perennials based on their life cycles.
Interactivity/ Simulation	**Try Cycles!:** In the interactive section of this module, students apply their understanding of plant and animal life cycles to identify the types of life cycles that different organisms undergo. **Comparing Life Cycles of Plants:** In this Simulation, students conduct an experiment to compare the length of time it takes for different plants to complete one life cycle.
WordExplorer	Growth and Change

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Quiz	The questions in the assessment section test student understanding of the following concepts: simple life cycles in animals, metamorphosis in animals, plant life cycles and classification of plants into annuals, biennials and perennials based on the number of growing seasons in their life cycles.
Journals	Journal #1 – TEKS 3.2B, D, F; 3.10B Journal #2 – TEKS 3.2B, D, F; 3.10B
Expository text passages/ activities	Lifecycles: Fireflies - TEKS 3.1A, B; 3.2 B, C, D, F; 3.4 A, B; 3.9 A; 3.10 A, 3.10 C
Readers	**Life Cycles of Plants and Animals:** A comparison of the life cycles of animals, insects and plants. **Science TEKS:** 3.10 (B), **ELA TEKS**: 3.13 (B), 3.6(F) **Reading levels:** 1
	The Long Journey of the Monarch: A description of the monarch butterfly's migration from north to south for winter and back north, following their food source. The text also describes metamorphosis. **Science TEKS:** 3.9(C), 3.10(B), **ELA TEKS:** 3.6(F),3.9(D)i, ii, iii, 3.10(A, B) **Reading levels: 1**
STAARSmart Tests	Unit Test: 3.10 (B) - Growth and Change

STAARSmart Tests – Reporting Category Tests	
STAARSmart Tests	Reporting Category Test: Organisms and Environments

STAARSmart Tests – STAAR Practice Tests	
STAARSmart Tests	STAAR Practice (A)
STAARSmart Tests	STAAR Practice (B)

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