



KN-5

**Alignment to the Oklahoma
Academic Science Standards**



Oklahoma Alignment

| Grade Level | Oklahoma Academic Science Standards | Activate Learning Prime Unit/Cluster/Lesson |
|--------------|--|---|
| Kindergarten | <p>Motion and Stability: Forces and Interactions K.PS2.1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.</p> | <p>Unit: Pushes and Pulls Cluster: Pushes and Pulls Everywhere Lesson: Motion Walk Lesson: Drawing Objects in Motion Lesson: Starting Things Moving Lesson: Turns, Curves, and Zigzags Lesson: Big and Small Pushes and Pulls</p> <p>Cluster: Using Pushes and Pulls Lessons Lesson: Playing with Collisions Lesson: Playground Motion</p> |
| | <p>Motion and Stability: Forces and Interactions K.PS2.2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.</p> | <p>Unit: Pushes and Pulls Cluster: Using Pushes and Pulls Lessons Lesson: Solving Motion Challenges</p> |
| | <p>Energy K.PS3.1. Make observations to determine the effect of sunlight on Earth’s surface.</p> | <p>Unit: Tracking the Weather Cluster: Observing the Weather Lesson: Sun’s Light, Sun’s Heat</p> |
| | <p>Energy K.PS3.2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.</p> | <p>Unit: Tracking the Weather Cluster: Observing the Weather Lesson: Making a Sun Shield</p> |
| | <p>From Molecules to Organisms: Structures and Processes K.LS1.1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> | <p>Unit: Plants and Animals Cluster: Animals and Where They Live Lesson: What Is an Animal? Lesson: Our Animal Library Lesson: What Do Animals Need? Lesson: What Does My Animal Eat?</p> <p>Cluster: Plants Around Us Lessons Lesson: Meet Our Class Plant Lesson: What Do Plants Need? Lesson: Plants in Our World</p> <p>Cluster: People and Their Needs</p> |

| | | |
|--|--|---|
| | <p>Earth's Systems K.ESS2.1. Use and share observations of local weather conditions to describe patterns over time.</p> | <p>Lesson: What People Need</p> <p>Unit: Tracking the Weather Cluster: Observing the Weather Lesson: What Is Weather? Lesson: What Am I Wearing? Lesson: Weather Calendar Lesson: Cloud and Precipitation Observations Lesson: Observing Evidence of Wind</p> <p>Cluster: Weather Over a Year Lesson: Weather Data for a Month Lesson: Fall Weather Data Lesson: Seasonal Weather Books Lesson: Winter Weather Data Lesson: Spring Weather Data</p> |
| | <p>Earth's Systems K.ESS2.2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.</p> | <p>Unit: Plants and Animals Cluster: Animals and Where They Live Lesson: Animals in the Wild</p> <p>Cluster: People and Their Needs Lesson: Neighborhood Walk Lesson: People Use Resources Lesson: Making Choices Lesson: Making Our Surroundings Better</p> <p>Unit: Animal Homes Design Project Lessons Cluster: Animal Homes Design Project Lesson: Looking at Animal Homes Lesson: Researching Animal Homes Lesson: Making Animal Homes Lesson: Presenting Animal Homes</p> |
| | <p>Earth and Human Activity K.ESS3.1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.</p> | <p>Unit: Plants and Animals Cluster: Animals and Where They Live Lesson: Where Does My Animal Live? Lesson: Where My Animals Gets Air and Water Lesson: What Does My Animal Eat? Lesson: Animals in the Wild</p> <p>Unit: Plants and Animals Cluster: Animal Homes Design Project</p> |

| | | |
|-----------------------|--|--|
| | | <p>Lesson: Looking at Animal Homes</p> <p>Lesson: Researching Animal Homes</p> <p>Lesson: Making Animal Homes</p> <p>Lesson: Presenting Animal Homes</p> |
| | <p>Earth and Human Activity</p> <p>K.ESS3.2. Ask questions to understand the purpose of weather forecasting to prepare for, and respond to, severe weather.</p> | <p>Unit: Tracking the Weather</p> <p>Cluster: Weather Over a Year</p> <p>Lesson: Severe Weather</p> |
| 1 st Grade | <p>Waves and Their Applications in Technologies for Information Transfer</p> <p>1.PS4.1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.</p> | <p>Unit: Light and Sound</p> <p>Cluster: What Is Sound? Lessons</p> <p>Lesson: Sound Detectives</p> <p>Lesson: Sound Vibrations</p> <p>Cluster: How Sound Travels Lessons</p> <p>Lesson: Sound Travels Through Materials</p> <p>Lesson: Sound Travels Through Air</p> <p>Lesson: Cup and String Telephones</p> <p>Lesson: Sound and Hearing</p> |
| | <p>Waves and Their Applications in Technologies for Information Transfer</p> <p>1.PS4.2. Make observations to construct an evidence-based account that objects can be seen only when illuminated.</p> | <p>Unit: Light and Sound</p> <p>Cluster: Light All Around Us Lessons</p> <p>Lesson: Light Around Us</p> <p>Lesson: Dark and Light</p> <p>Lesson: Light Travels</p> |
| | <p>Waves and Their Applications in Technologies for Information Transfer</p> <p>1.PS4.3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.</p> | <p>Unit: Light and Sound</p> <p>Cluster: Light Meeting Materials Lessons</p> <p>Lesson: Light Investigations</p> <p>Lesson: Blocking and Reflecting Light</p> <p>Lesson: Light and Shadow</p> <p>Lesson: Prisms and Rainbows</p> |
| | <p>Waves and Their Applications in Technologies for Information Transfer</p> <p>1.PS4.4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.</p> | <p>Unit: Light and Sound</p> <p>Cluster: Communications Project for Lower Elementary Lessons</p> <p>Lesson: Exploring Communication Devices</p> <p>Lesson: Making a Simple Communication Device</p> <p>Lesson: Building a New Communication Device</p> <p>Lesson: Testing and Demonstrating Devices</p> |
| | <p>From Molecules to Organisms: Structures and Processes</p> <p>1.LS1.1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</p> | <p>Unit: Examining Living Things</p> <p>Cluster: Living Things Lessons</p> <p>Lesson: What Is a Biologist?</p> <p>Lesson: Fall Wild Walk</p> |

| | | |
|--|--|--|
| | | <p>Cluster: Plant Parts Lessons Lesson: Exploring Plant Parts Lesson: Examining Roots Lesson: Experimenting with Stems Lesson: Studying Leaves Lesson: Inspecting Flowers Lesson: Finding Seeds in Fruit Lesson: Sprouting New Plants</p> <p>Cluster: Animal Parts Lessons Lesson: Animal Body Parts Lesson: Snails: Parts and Functions Lesson: Crickets: Parts and Functions Lesson: Fish: Parts and Functions Lesson: Invent an Animal</p> <p>Cluster: Nature-Inspired Inventions Lesson: Exploring Nature-Inspired Inventions Lesson: Testing a Nature-Inspired Invention Lesson: Building the Tallest Tower</p> |
| | <p>From Molecules to Organisms: Structures and Processes 1.LS1.2. Obtain information from media and/or text to determine patterns in the behavior of parents and offspring that help offspring survive.</p> | <p>Unit: Examining Living Things Cluster: Animal Family Lessons Lesson: Animal Family Research Lesson: Animal Family Books</p> |
| | <p>Heredity: Inheritance and Variation of Traits 1.LS3.1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents</p> | <p>Unit: Examining Living Things Cluster: Animal Family Lessons Lesson: Comparing Animal Parents and Offspring</p> |
| | <p>Earth's Place in the Universe 1.ESS1.1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.</p> | <p>Unit: Watching the Sky Cluster: Sky Objects Lessons Lesson: Objects in the Sky Lesson: Day and Night Sky Lesson: Watching the Sun During a Day Lesson: Moon Detectives Lesson: Star Detectives</p> |
| | <p>Earth's Place in the Universe 1.ESS1.2. Make observations at different times of year to relate the amount of daylight and relative temperature to the time of year.</p> | <p>Unit: Watching the Sky Cluster: Length of Day Lessons Lesson: What Are Sunrise and Sunset? Lesson: Fall Sunrise and Sunset Patterns</p> |

| | | |
|-----------------------|---|--|
| | | Lesson: Winter Sunrise and Sunset Patterns Lesson: Spring Sunrise and Sunset Patterns Lesson: Planning an Event |
| | Earth and Human Activity 1.ESS3.1 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.* | Addressed in Kindergarten Unit: Plants and Animals Cluster: People and Their Needs Lesson: Neighborhood Walk Lesson: People Use Resources Lesson: Making Choices Lesson: Making Our Surroundings Better |
| 2 nd Grade | Matter and Its Interactions 2.PS1.1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. | Unit: Solids, Liquids, and Gases Cluster: Objects and Materials Lessons Lesson: Properties of Objects Cluster: Properties of Solids and Liquids Lessons Lesson: A Walk Outside Lesson: Comparing Liquids |
| | Matter and Its Interactions 2.PS1.2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. | Unit: Solids, Liquids, and Gases Cluster: Objects and Materials Lessons Lesson: What Are Things Made Of? Cluster: Properties of Solids and Liquids Lessons Lesson: Comparing Liquids Lesson: Changing Solids |
| | Matter and Its Interactions 2.PS1.3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. | Unit: Solids, Liquids, and Gases Cluster: Objects and Materials Lessons Lesson: Building a New Object |
| | Matter and Its Interactions 2.PS1.4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. | Unit: Solids, Liquids, and Gases Cluster: Heating and Cooling Lessons Lesson: Water Changes Lesson: Reversible and Irreversible Changes |
| | Ecosystems: Interactions, Energy, and Dynamics 2.LS2.1. Plan and conduct an investigation to determine if plants need sunlight and water to grow. | Unit: Diversity in Habitats Cluster: Plants Relationships Lessons Lesson: Plant Needs Investigation |
| | Ecosystems: Interactions, Energy, and Dynamics 2.LS2.2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.* | Unit: Diversity in Habitats Cluster: Plants Relationships Lessons Lesson: Pollination Partnerships Lesson: Seed Dispersal |

| | | |
|--|--|---|
| | <p>Biological Unity and Diversity 2.LS4.1. Make observations of plants and animals to compare the diversity of life in different habitats.</p> | <p>Unit: Diversity in Habitats Cluster: Sharing Habitats Lesson: Living in My Habitat Lesson: Sharing an Oak Tree Habitat Lesson: Diversity in Owl Food Lesson: Sharing a Saguaro Habitat Lesson: Sharing a Kelp Forest Habitat Lesson: Diversity Walk</p> |
| | <p>Earth's Place in the Universe 2-.ESS1.1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly</p> | <p>Unit: Land, Water, and Wind Cluster: Changes to the Shape of the Land Lessons Lesson: Water Can Change the Land Lesson: Wind Can Change the Land Lesson: Rapid Changes to the Land</p> |
| | <p>Earth's Systems 2.ESS2.1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p> | <p>Unit: Land, Water, and Wind Cluster: Changes to the Shape of the Land Lessons Lesson: Solutions to Water Erosion Lesson: Wind Can Change the Land</p> |
| | <p>Earth's Systems 2.ESS2.2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.</p> | <p>Unit: Land, Water, and Wind Cluster: Landforms and Bodies of Water Lessons Lesson: Looking at Earth's Surface: Landforms Lesson: Looking at Earth's Surface: Bodies of Water Lesson: Modeling Landforms and Bodies of Water Lesson: Mapping Landforms and Bodies of Water</p> |
| | <p>Earth's Systems 2.ESS2.3. Obtain information to identify where water is found on Earth and that it can be solid or liquid</p> | <p>Unit: Land, Water, and Wind Cluster: Landforms and Bodies of Water Lessons Lesson: Looking at Earth's Surface: Bodies of Water Lesson: Mapping Landforms and Bodies of Water</p> |
| | <p>Motion and Stability: Forces and Interactions 3.PS2.1. Plan and conduct investigations on the effects of balanced and unbalanced forces on the motion of an object.</p> | <p>Unit: Forces in Action Cluster: Force and Motion Lessons Lesson: Forces: Starting Things Moving Lesson: Forces have Strength and Direction Lesson: Examining Forces Lesson: Gravity Is a Force Lesson: Balanced and Unbalanced Forces</p> |
| | <p>Motion and Stability: Forces and Interactions 3.PS2.2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion</p> | <p>Unit: Forces in Action Cluster: Force and Motion Lessons Lesson: Predicting Motion</p> |
| | <p>Motion and Stability: Forces and Interactions</p> | <p>Unit: Forces in Action</p> |

| | | |
|-----------------------|---|---|
| 3 rd grade | <p>3.PS2.3. Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other</p> | <p>Cluster: Magnetic Forces Lessons Lesson: Magnets Interacting with Materials Lesson: Forces of Magnets Through Materials Lesson: Magnets on Magnets</p> <p>Cluster: Static Electricity Lessons Lesson: Discovering Static Electricity Lesson: Static Electricity Tests</p> |
| | <p>Motion and Stability: Forces and Interactions 3.PS2.4. Define a simple design problem that can be solved by applying scientific ideas about magnets.</p> | <p>Unit: Forces in Action Cluster: Magnetic Forces Lessons Lesson: Designing Magnetic Devices Lesson: Building Magnetic Devices Lesson: Sharing Magnetic Devices</p> |
| | <p>From Molecules to Organisms: Structure and Processes 3.LS1.1. Develop models and use models to describe that organisms have unique and diverse life cycles but all have a common pattern of birth, growth, reproduction, and death.</p> | <p>Unit: Patterns in Life Cycles Cluster: Life Cycles Introduction Lesson: Introduction to Life Cycles Lesson: Comparing Life Cycles</p> <p>Cluster: Seed to Seed Study Lesson: Planting Seeds Lesson: Transplanting Sprouts Lesson: Looking at Flowers Lesson: Observing Fruit and Seeds</p> <p>Cluster: Butterflies Study Lesson: Baby Caterpillars Lesson: Larger Caterpillars Lesson: Chrysalises Lesson: Adult Butterflies Lesson: Generations</p> |
| | <p>Heredity: Inheritance and Variation of Traits 3.LS2.1. Construct an argument that some animals form groups that help members survive.</p> | <p>Unit: Changing Environments Cluster: Survival in Different Environments Lesson: Exploring Behaviors</p> |
| | <p>Heredity: Inheritance and Variation of Traits 3.LS3.1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.</p> | <p>Unit: Inheritance and Variation Cluster: Inheriting Traits Lessons Lesson: Are All Dogs Alike? Lesson: Where Do Traits Come From? Lesson: Variation from Parents</p> |

| | | |
|--|---|--|
| | | <p>Cluster: Consequences of Variation Lesson: Does Variation in Color Matter?</p> |
| <p>Heredity: Inheritance and Variation of Traits 3.LS3.2. Use evidence to support the explanation that traits can be influenced by the environment.</p> | <p>Unit: Inheritance and Variation Cluster: Environment and Variation Lessons Lesson: Variation in Plants Lesson: Variation in Animals</p> <p>Cluster: Consequences of Variation Lesson: Variation and Survival</p> | |
| <p>Biological Unity and Diversity 3.LS4.1. Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.</p> | <p>Unit: Changing Environments Cluster: Learning from Fossils Lesson: Backyard Discovery Lesson: What Can Fossils Tell Us? Lesson: Fossils Tell of Change</p> | |
| <p>Biological Unity and Diversity 3.LS4.2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving and reproducing.</p> | <p>Unit: Inheritance and Variation Cluster: Consequences of Variation Lesson: Variation and Survival</p> | |
| <p>Biological Unity and Diversity 3.LS4.3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</p> | <p>Unit: Changing Environments Cluster: Survival in Different Environments Lesson: Environmental Matchup Lesson: Exploring Behaviors Lesson: How a Bird Feeds Lesson: How a Cactus Survives</p> <p>Cluster: Consequences of Variation Lesson: Does Variation in Color Matter</p> | |
| <p>Biological Unity and Diversity 3.LS4.4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.</p> | <p>Unit: Changing Environments Cluster: Solutions to Change Lesson: Effects of Environmental Change Lesson: Evaluating Solutions to Environmental Change</p> | |
| <p>Earth's Systems 3-.ESS2.1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</p> | <p>Unit: Weather and Climate Cluster: What Is Weather? Lessons Lesson: Describing Weather Lesson: Where Does Weather Happen? Lesson: Weather in Different Places?</p> <p>Cluster: Weather Data Lessons</p> | |

| | | |
|-----------------------|--|--|
| | | <p>Lesson: Making Weather Tools Lesson: Observing and Measuring Weather Lesson: Analyzing Weather Data Lesson: Making Weather Maps</p> |
| | <p>Earth's Systems 3.ESS2.2. Obtain and combine information to describe climates in different regions of the world</p> | <p>Unit: Weather and Climate Cluster: Climate Lessons Lesson: What Is a Climate Zone? Lesson: Identifying Mystery Climates Lesson: Discovering Climate Patterns</p> |
| | <p>Earth and Human Activity 3.ESS3.1. Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.</p> | <p>Unit: Weather and Climate Cluster: Severe Weather Lessons Lesson: What Is Severe Weather? Lesson: Predicting Severe Weather Lesson: Reducing Severe Weather Effects</p> |
| 4 th Grade | <p>4.PS3.1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.</p> | <p>Unit: Energy Transfers Cluster: Motion Energy Transfers Lessons Lesson: Energy of Moving Objects Lesson: Colliding Marbles</p> |
| | <p>Energy 4.PS3.2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.</p> | <p>Unit: Energy Transfers Cluster: Changing Energy Lessons Lesson: Energy Is All Around Us Lesson: Forms of Energy Lesson: Energy Transfer in Toys</p> <p>Cluster: Light Energy Lessons Lesson: Light Is Energy Lesson: Modeling Traveling Light</p> <p>Cluster: Putting Energy to Work Lessons Lesson: Inventions with Energy</p> <p>Unit: Technology and Energy Cluster: Using Electric Current Lesson: Light a Bulb Lesson: More Light Connections Lesson: Circuits for Other Effects Lesson: Conductors and Insulators Lesson: Recognizing Electrical Hazards</p> |

| | | |
|--|--|--|
| | | <p>Cluster: <i>Electrical Circuits Design Project</i> Lesson: Creating a Bulb Holder Lesson: Circuits and Schematics Lesson: Designing Circuits Lesson: Building and Refining Circuits Lesson: Demonstrating Circuits</p> <p>Unit: Waves Cluster: <i>Different Kinds of Waves Lessons</i> Lesson: Sound Travels in Waves</p> |
| Energy 4.PS3.3. Ask questions and predict outcomes about the changes in energy that occur when objects collide. | | <p>Unit: Energy Transfers Cluster: <i>Motion Energy Transfers Lessons</i> Lesson: Energy of Moving Objects Lesson: Colliding Marbles</p> |
| Energy 4.PS3.4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another | | <p>Unit: Technology and Energy Cluster: <i>Electrical Circuits Design Project</i> Lesson: Building Parallel Circuits Lesson: Designing Circuits Lesson: Building and Refining Circuits Lesson: Demonstrating Circuits</p> |
| Waves and Their Applications in Technologies for Information Transfer 4.PS4.1. Develop a model of waves to describe patterns in terms of amplitude and wavelength and to show that waves can cause objects to move. | | <p>Unit: Waves Cluster: <i>What Is a Wave? Lessons</i> Lesson: What Are Waves? Lesson: Wave Behavior Lesson: Wave Shape Lesson: Wave Motion and Energy</p> <p>Cluster: <i>Different Kinds of Waves Lessons</i> Lesson: Deep and Shallow Water Waves Lesson: Sound Travels in Waves</p> |
| Waves and Their Applications in Technologies for Information Transfer 4.PS4.2. Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen. | | <p>Unit: Energy Transfers Cluster: <i>Light Energy Lessons</i> Lesson: Reflecting Light Lesson: The Eye and Light Lesson: Modeling Traveling Light</p> |
| Waves and Their Applications in Technologies for Information Transfer 4.PS4.3. Generate and compare multiple solutions that use patterns to transfer information. | | <p>Unit: Waves Cluster: <i>Communications Project for Upper Elementary Lessons</i> Lesson: Exploring a Communication Solution</p> |

| | | |
|---|--|--|
| | | <p>Lesson: Using Codes to Communicate</p> <p>Lesson: Developing a Communication Solution</p> <p>Lesson: Refining a Communication Solution</p> <p>Lesson: Demonstrating a Communication Solution</p> <p>Lesson: History of Communication Technology</p> |
| <p>From Molecules to Organisms: Structure and Processes</p> <p>4.LS1.1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</p> | <p>Unit: Structures in Living Things</p> <p>Cluster: Animals – Structure, Function, and Information Processing</p> <p>Lesson: Animal Structures</p> <p>Lesson: Human Body Structures and Functions</p> <p>Lesson: Observing Earthworms</p> <p>Cluster: Plants – Structure and Function</p> <p>Lesson: Plants Structures and Systems</p> <p>Lesson: Observing Plant Structures</p> | |
| <p>From Molecules to Organisms: Structure and Processes</p> <p>4.LS1.2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.</p> | <p>Unit: Structures in Living Things</p> <p>Cluster: Animals – Structure, Function, and Information Processing</p> <p>Lesson: Investigating Earthworm Senses</p> | |
| <p>Earth’s Place in the Universe</p> <p>4.ESS1.1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time</p> | <p>Unit: Our Geosphere</p> <p>Cluster: Explaining Earth’s Changes Lessons</p> <p>Lesson: Shaping the Earth</p> <p>Lesson: Fossils in Rock Layers</p> | |
| <p>Earth’s Systems</p> <p>4.ESS2.1. Plan and conduct investigations on the effects of water, ice, wind and vegetation on the relative rate of weathering and erosion.</p> | <p>Unit: Our Geosphere</p> <p>Cluster: Effects of Weathering and Erosion Lessons</p> <p>Lesson: Landscapes Change</p> <p>Lesson: Abrasion Weathers Rock</p> <p>Lesson: Glaciers Change Landscapes</p> <p>Lesson: Investigating Erosion and Deposition</p> | |
| <p>Earth’s Systems</p> <p>4.ESS2.2. Analyze and interpret data from maps to describe patterns of Earth’s features.</p> | <p>Unit: Our Geosphere</p> <p>Cluster: A Moving Earth Lessons</p> <p>Lesson: Moving Plates Create Landscapes</p> <p>Lesson: Mapping Earthquakes</p> | |
| <p>Earth and Human Activity</p> <p>4.ESS3.1. Obtain and combine information to describe that energy and fuels are derived from renewable and non-renewable resources and how their uses affect the environment.</p> | <p>Unit: Technology and Energy</p> <p>Cluster: Energy for Human Technologies</p> <p>Lesson: Stored Energy and Fuels</p> <p>Lesson: Effects on Our Planet</p> | |
| <p>Earth and Human Activity</p> | <p>Unit: Our Geosphere</p> <p>Cluster: Effects of Weathering and Erosion Lessons</p> | |

| | | |
|-----------------------|--|--|
| | 4.ESS3.2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans | Investigating Erosion and Deposition Unit: Technology and Energy Cluster: Energy for Human Technologies Lesson: Energy Conservation |
| 5 th Grade | Matter and Its Interactions 5.PS1.1. Develop a model to describe that matter is made of particles too small to be seen | Unit: Investigating Matter Cluster: Properties of Matter Lesson: Properties of Gases Cluster: Mixing and Changing Matter Lesson: Modeling Mixtures |
| | Matter and Its Interactions 5.PS1.2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. | Unit: Investigating Matter Cluster: Mixing and Changing Matter Lesson: Heating and Cooling Matter Lesson: Mixtures Lesson: Modeling Mixtures Lesson: Exploring Chemical Reactions |
| | Matter and Its Interactions 5.PS1.3. Make observations and measurements to identify materials based on their properties | Unit: Investigating Matter Cluster: Properties of Matter Lesson: What is Matter? Lesson: Properties of Matter Lesson: Identifying Materials' Properties |
| | Matter and Its Interactions 5.PS1.4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances | Unit: Investigating Matter Cluster: Mixing and Changing Matter Lesson: Modeling Mixtures Lesson: Exploring Chemical Reactions Lesson: Investigating Whatzit?! |
| | Motion and Stability: Forces and Interactions 5.PS2.1. Support an argument, with evidence, that Earth's gravitational force pulls objects downward towards the center of the earth. | Unit: Earth in Space Cluster: Gravity on Earth Lesson: Modeling Earth's Shape Lesson: Earth's Gravitational Force |
| | Energy 5.PS3.1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. | Unit: Ecosystems Cluster: Matter and Energy in Ecosystems Lesson: Matter and Energy Cluster: Producers Lesson: Sunlight on the Menu |
| | From Molecules to Organisms: Structure and Processes | Unit: Ecosystems Cluster: Producers |

| | | |
|--|--|---|
| | <p>5.LS1.1. Support an argument that plants get the materials they need for growth chiefly from air and water.</p> | <p>Lesson: Plants as Producers</p> |
| | <p>Ecosystems: Interactions, Energy, and Dynamics</p> <p>5.LS2.1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p> | <p>Unit: Ecosystems</p> <p>Cluster: Matter and Energy in Ecosystems</p> <p>Lesson: What Is an Ecosystem?</p> <p>Lesson: Matter and Energy</p> <p>Lesson: Players in an Ecosystem</p> <p>Cluster: Producers</p> <p>Lesson: Testing Plant Growth</p> <p>Cluster: Waste and Decomposers</p> <p>Lesson: Nature’s Waste Matter</p> <p>Lesson: Nature Breaks It Down</p> <p>Lesson: Nature Cleans It Up</p> <p>Lesson: Worms: Consumers and Decomposers</p> <p>Cluster: Completing the Cycle</p> <p>Lesson: Nutrients Help Plants</p> <p>Lesson: Matter on the Move</p> <p>Lesson: Prairie Ecosystem</p> |
| | <p>Ecosystems: Interactions, Energy, and Dynamics</p> <p>5.LS2.2 Use models to explain factors that upset the stability to local ecosystems.</p> | <p>Unit: Earth’s Systems</p> <p>Cluster: Protecting Water Resources</p> <p>Lesson: Water Is a Resource</p> <p>Lesson: Human Water Systems</p> <p>Lesson: Conserving Water at Home</p> <p>Lesson: Cleaning Polluted Water</p> <p>Cluster: Human Impacts Project</p> <p>Lesson: Humans Affect the Environment</p> |
| | <p>Earth’s Place in the Universe</p> <p>5.ESS1.1. Support an argument with evidence that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.</p> | <p>Unit: Earth in Space</p> <p>Cluster: Sun and Other Stars</p> <p>Lesson: Our Sun Is a Star</p> |
| | <p>Earth’s Place in the Universe</p> <p>5.ESS1.2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows; in addition to different positions of the sun, moon, and stars at different times of the day, month and year.</p> | <p>Unit: Earth in Space</p> <p>Cluster: Daily Pattern of the Sun</p> <p>Lesson: Day and Night</p> <p>Lesson: Observing Shadow Patterns</p> <p>Lesson: Observing the Sun for a Day</p> |

| | | |
|--|--|--|
| | | <p>Lesson: Tracking Shadows During a Day Lesson: Models of the Sun and Shadow Lesson: Models of Daytime and Nighttime Lesson: Modeling Earth’s Rotation</p> <p>Unit: Earth in Space Cluster: Sun and Other Stars Lesson: Seeing Stars from Earth Lesson: Earth’s Orbit and Stars Lesson: Star Patterns</p> |
| | <p>Earth’s Systems 5.ESS2.1. Develop a model to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.</p> | <p>Unit: Earth’s Systems Cluster: Discovering Earth’s Systems Lessons Lesson: Watching a Drop of Rain Lesson: Earth Walk Part I Lesson: Studying Earth’s Systems Lesson: Modeling Earth’s Systems Lesson: Earth Walk Part II</p> <p>Cluster: Earth’s Water Systems Lessons Lesson: Learning About Surface Water Lesson: Water Beneath Earth’s Surface Lesson: Frozen Water on Earth Lesson: Water in the Atmosphere Lesson: Modeling the Hydrosphere</p> |
| | <p>Earth’s Systems 5.ESS2.2. Describe and graph the amounts of saltwater and freshwater in various reservoirs to provide evidence about the distribution of water on Earth.</p> | <p>Unit: Earth’s Systems Cluster: Earth’s Water Systems Lessons Lesson: Water Beneath Earth’s Surface Lesson: Frozen Water on Earth Lesson: Water in the Atmosphere Lesson: Modeling the Hydrosphere</p> |
| | <p>Earth and Human Activity 5.ESS3.1. Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.</p> | <p>Unit: Earth’s Systems Cluster: Protecting Water Resources Lesson: Water Is a Resource Lesson: Human Water Systems Lesson: Conserving Water at Home Lesson: Cleaning Polluted Water</p> <p>Cluster: Human Impacts Project Lesson: Humans Affect the Environment Lesson: Investigating Human Impacts</p> |