Activate Learning PRIME Alignment to the South Carolina College-and-Career-Ready Science Standards 2021 Grades K-5

The page numbers listed represent each section in which students are being prepared to meet the *South Carolina College-and-Career-Ready Science Standards 2021*.

Activate Learning

Engaged Students. Passionate Teachers.

Grade Level	South Carolina College-and-Career-Ready Science Standards 2021	Activate Learning Prime Unit/Cluster/Lesson
KINDERGARTEN		
	Motion and Stability: Forces and Interactions (PS2)	
	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.	**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 ***Cluster: Using Pushes and Pulls Lessons*** Lesson: Playing with Collisions Lesson: Playground Motion
	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.	**Unit: Pushes and Pulls** ***Cluster: Using Pushes and Pulls Lessons*** Lesson: Solving Motion Challenges (**ETS1.A**, **ETS2.A**)
	Energy (PS3)	
	K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.	**Unit: Tracking the Weather** ***Cluster: Observing the Weather*** Lesson: Sun's Light, Sun's Heat
	K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	**Unit: Tracking the Weather** ***Cluster: Observing the Weather*** Lesson: Making a Sun Shield (**ETS1.B**, **ETS2.A**)
	Molecules to Organisms: Structures and Processes (LS1)	
	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	**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?

		Cluster: Plants Around Us Lessons Lesson: Meet Our Class Plant Lesson: What Do Plants Need? Lesson: Plants in Our World ***Cluster: People and Their Needs*** Lesson: What People Need
	Earth's Systems (ESS2)	
	K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	**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 ***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
	K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	**Unit: Plants and Animals** ***Cluster: Animals and Where They Live*** Lesson: Animals in the Wild ***Cluster: People and Their Needs*** Lesson: Neighborhood Walk Lesson: Making Our Surroundings Better **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
	Earth and Human Activity (ESS3)	
	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.	**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 **Unit: Plants and Animals** ***Cluster: Animal Homes Design Project*** Lesson: Looking at Animal Homes Lesson: Researching Animal Homes Lesson: Making Animal Homes Lesson: Presenting Animal Homes
	K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	**Unit: Tracking the Weather** ***Cluster: Weather Over a Year*** Lesson: Severe Weather (**ETS1.A**)
	K-ESS3-3. Plan and carry out an investigation that gives evidence of human impact on the land, water, air, and/or other living things in the local environment.	**Unit: Plants and Animals** ***Cluster: People and Their Needs*** Lesson: People Use Resources Lesson: Making Choices Lesson: Making Our Surroundings Better (**ETS1.A**)
FIRST GRADE		
	Waves and their Applications in Technologies for Information Transfer (PS4)	
1st Grade	1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	**Unit: Light and Sound** ***Cluster: What Is Sound? Lessons*** Lesson: Sound Detectives Lesson: Sound Vibrations ***Cluster: How Sound Travels Lessons*** Lesson: Sound Travels Through Materials Lesson: Sound Travels Through Air Lesson: Cup and String Telephones Lesson: Sound and Hearing
	1-PS4-2. Make observations to construct an evidence-based claim that objects in darkness can be seen only when illuminated by light sources.	**Unit: Light and Sound** ***Cluster: Light All Around Us Lessons*** Lesson: Light Around Us Lesson: Dark and Light Lesson: Light Travels

	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.	**Unit: Light and Sound** ***Cluster: Light Meeting Materials Lessons*** Lesson: Light Investigations Lesson: Blocking and Reflecting Light Lesson: Light and Shadow Lesson: Prisms and Rainbows
	1-PS4-4. Use tools and materials to design and build a device that uses light or sound to communicate over distance.	**Unit: Light and Sound** ***Cluster: Communications Project for Lower Elementary Lessons (*ETS1.B, ETS2.B)** Lesson: Exploring Communication Devices Lesson: Making a Simple Communication Device Lesson: Building a New Communication Device Lesson: Testing and Demonstrating Devices
	From Molecules to Organisms: Structures and Processes (LS1)	
	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.	**Unit: Examining Living Things** ***Cluster: Living Things Lessons*** Lesson: What Is a Biologist? Lesson: Fall Wild Walk ***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 ***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 (**ETS1.B, ETS2.B**) ***Cluster: Nature-Inspired Inventions*** (**ETS1.B, ETS2.B)** Lesson: Exploring Nature-Inspired Inventions Lesson: Testing a Nature-Inspired Invention Lesson: Building the Tallest Tower

	1-LS1-2. Obtain information from multiple sources to determine patterns in behavior of parents and offspring that help offspring survive.	**Unit: Examining Living Things** ***Cluster: Animal Family Lessons*** Lesson: Animal Family Research Lesson: Animal Family Books
	Heredity: Inheritance and Variation of Traits (LS3)	
	1-LS3-1. Make observations of plants and animals to support an evidence-based claim that most young are like, but not exactly like, their parents.	**Unit: Examining Living Things** ***Cluster: Animal Family Lessons*** Lesson: Comparing Animal Parents and Offspring
	Earth's Place in the Universe (ESS1)	
	1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.	**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 (**ETS2.A**) Lesson: Moon Detectives Lesson: Star Detectives
	1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.	**Unit: Watching the Sky** ***Cluster: Length of Day Lessons*** Lesson: What Are Sunrise and Sunset? Lesson: Fall Sunrise and Sunset Patterns Lesson: Winter Sunrise and Sunset Patterns Lesson: Spring Sunrise and Sunset Patterns Lesson: Planning an Event (**ETS2.A**)
SECOND GRADE		
	Matter and Its Interactions (PS1)	
	2-PS1-1. Plan and conduct an investigation to describe, identify patterns, 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
	2-PS1-2. Analyze data obtained from tests to determine which materials have the best properties 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***

2nd Grade		Lesson: Comparing Liquids Lesson: Changing Solids
	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 (**ETS1.B)**
	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 (LS2)	
	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
	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 (**ETS1.B**)
	Biological Evolution: Unity and Diversity (LS4)	
	2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.	**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
	Earth's Place in the Universe (ESS1)	
	2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur rapidly or slowly.	**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
	Earth's Systems (ESS2)	
	2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	**Unit: Land, Water, and Wind** ***Cluster: Changes to the Shape of the Land Lessons*** (**ETS1.C**, **ETS2.B**) Lesson: Solutions to Water Erosion Lesson: Wind Can Change the Land

	2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.	**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
	2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.	**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
	Earth and Human Activity (ESS3)	
	2-ESS3-1. Design solutions to address human impacts on natural resources in the local environment.	**Unit: Land, Water, and Wind** ***Cluster: Changes to the Shape of the Land Lessons*** (**ETS1.C**, **ETS2.B**) Lesson: Solutions to Water Erosion Lesson: Wind Can Change the Land
THIRD GRADE		
	Motion and Stability: Forces and interactions (PS2)	
	3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	**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
	3-PS2-2. Make observations and measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	**Unit: Forces in Action** ***Cluster: Force and Motion Lessons*** Lesson: Predicting Motion
3rd grade	3-PS2-3. Ask questions to determine cause and effect relationships of electric interactions and magnetic interactions between two objects not in contact with each other.	**Unit: Forces in Action** ***Cluster: Magnetic Forces Lessons*** Lesson: Magnets Interacting with Materials Lesson: Forces of Magnets Through Materials Lesson: Magnets on Magnets ***Cluster: Static Electricity Lessons*** Lesson: Discovering Static Electricity Lesson: Static Electricity Tests

	3-PS2-4. Develop possible solutions to a simple design problem by applying scientific ideas about magnets.	**Unit: Forces in Action** ***Cluster: Magnetic Forces Lessons* (ETS1.B, ETS2.A)** Lesson: Designing Magnetic Devices Lesson: Building Magnetic Devices Lesson: Sharing Magnetic Devices
	From Molecules to Organisms: Structures and Processes (LS1)	
	3-LS1-1. Develop and use models to describe how organisms change in predictable patterns during their unique and diverse life cycles.	**Unit: Patterns in Life Cycles** ***Cluster: Life Cycles Introduction*** Lesson: Introduction to Life Cycles Lesson: Comparing Life Cycles ***Cluster: Seed to Seed Study*** Lesson: Planting Seeds Lesson: Transplanting Sprouts Lesson: Looking at Flowers Lesson: Observing Fruit and Seeds ***Cluster: Butterflies Study*** Lesson: Baby Caterpillars Lesson: Larger Caterpillars Lesson: Chrysalises Lesson: Adult Butterflies Lesson: Generations
	Ecosystems: Interactions, Energy, and Dynamics (LS2)	
	3-LS2-1. Construct an argument that some animals form groups that help members survive.	**Unit: Changing Environments** ***Cluster: Survival in Different Environments*** Lesson: Exploring Behaviors
	Heredity: Inheritance and Variation of Traits (LS3)	
	3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have inherited traits that vary within a group of similar organisms.	**Unit: Inheritance and Variation** ***Cluster: Inheriting Traits Lessons*** Lesson: Are All Dogs Alike? Lesson: Where Do Traits Come From? Lesson: Variation from Parents ***Cluster: Consequences of Variation*** Lesson: Does Variation in Color Matter?
	3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.	**Unit: Inheritance and Variation** ***Cluster: Environment and Variation Lessons***

		Lesson: Variation in Plants Lesson: Variation in Animals ***Cluster: Consequences of Variation*** Lesson: Variation and Survival
	Biological Evolution: Unity and Diversity (LS4)	
	3-LS4-1. Analyze and interpret data from fossils to provide evidence of organisms and the environments in which they lived long ago.	**Unit: Changing Environments** ***Cluster: Learning from Fossils*** Lesson: Backyard Discovery Lesson: What Can Fossils Tell Us? Lesson: Fossils Tell of Changes
	3-LS4-2. Use evidence to construct an explanation for how the variations in traits among individuals of the same species may provide advantages in surviving and producing offspring.	**Unit: Inheritance and Variation** ***Cluster: Consequences of Variation*** Lesson: Variation and Survival
	3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can thrive, struggle to survive, or fail to survive.	**Unit: Changing Environments** ***Cluster: Survival in Different Environments*** Lesson: Environmental Matchup Lesson: Exploring Behaviors Lesson: How a Bird Feeds Lesson: How a Cactus Survives ***Cluster: Consequences of Variation*** Lesson: Does Variation in Color Matter
	3-LS4-4. Make a claim about the effectiveness of a solution to a problem caused when the environment changes and affects organisms living there.	**Unit: Changing Environments** ***Cluster: Solutions to Change (*****ETS1.C**, **ETS2.A**) Lesson: Effects of Environmental Change Lesson: Evaluating Solutions to Environmental Change
	Earth's Systems (ESS2)	
	3-ESS2-1. Represent data in tables and graphical displays of typical weather conditions during a particular season to identify patterns and make predictions.	**Unit: Weather and Climate** ***Cluster: What Is Weather? Lessons*** Lesson: Describing Weather Lesson: Where Does Weather Happen? Lesson: Weather in Different Places? ***Cluster: Weather Data Lessons*** Lesson: Making Weather Tools Lesson: Observing and Measuring Weather

		Lesson: Analyzing Weather Data Lesson: Making Weather Maps
	3-ESS2-2. Obtain and combine information to describe climate patterns in different regions of the world.	**Unit: Weather and Climate** ***Cluster: Climate Lessons*** Lesson: What Is a Climate Zone? Lesson: Identifying Mystery Climates Lesson: Discovering Climate Patterns
	Earth and Human Activity (ESS3)	
	3-ESS3-1. Make a claim about the effectiveness of a design solution that reduces the impacts of a weather-related hazard.	**Unit: Weather and Climate** ***Cluster: Severe Weather Lessons*** Lesson: What Is Severe Weather? Lesson: Predicting Severe Weather Lesson: Reducing Severe Weather Effects (**ETS1.C**, **ETS2.B**)
FOURTH GRADE		
	Energy (PS3)	
	4-PS3-1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.	**Unit: Energy Transfers** ***Cluster: Motion Energy Transfers Lessons*** Lesson: Energy of Moving Objects Lesson: Colliding Marbles
	4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.	**Unit: Energy Transfers** ***Cluster: Changing Energy Lessons*** Lesson: Energy Is All Around Us Lesson: Forms of Energy Lesson: Energy Transfer in Toys ***Cluster: Light Energy Lessons*** Lesson: Light Is Energy Lesson: Modeling Traveling Light ***Cluster: Putting Energy to Work Lessons*** Lesson: Inventions with Energy **Unit: Technology and Energy** ***Cluster: Using Electric Current*** Lesson: Light a Bulb Lesson: More Light Connections Lesson: Circuits for Other Effects

4th Grade		Lesson: Conductors and Insulators Lesson: Recognizing Electrical Hazards ***Cluster: Electrical Circuits Design Project*** Lesson: Creating a Bulb Holder Lesson: Circuits and Schematics Lesson: Designing Circuits Lesson: Building and Refining Circuits Lesson: Demonstrating Circuits **Unit: Waves** ***Cluster: Different Kinds of Waves Lessons*** Lesson: Sound Travels in Waves
	4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide.	**Unit: Energy Transfers** ***Cluster: Motion Energy Transfers Lessons*** Lesson: Energy of Moving Objects Lesson: Colliding Marbles
	4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	**Unit: Technology and Energy** ***Cluster: Electrical Circuits Design Project*** **(ETS1.A, ETS1.B, ETS2.B)** Lesson: Building Parallel Circuits Lesson: Designing Circuits Lesson: Building and Refining Circuits Lesson: Demonstrating Circuits
	Waves and their Applications in Technologies for Information Transfer (PS4)	
	4-PS4-1. Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.	**Unit: Waves** ***Cluster: What Is a Wave? Lessons*** Lesson: What Are Waves? Lesson: Wave Behavior Lesson: Wave Shape Lesson: Wave Motion and Energy ***Cluster: Different Kinds of Waves Lessons*** Lesson: Deep and Shallow Water Waves Lesson: Sound Travels in Waves
	4-PS4-2. Develop a model to describe that light reflecting from objects and entering the eye affects the object's appearance.	**Unit: Energy Transfers** ***Cluster: Light Energy Lessons*** Lesson: Reflecting Light Lesson: The Eye and Light

		Lesson: Modeling Traveling Light
	4-PS4-3. Generate and compare multiple solutions that use patterns to transmit information.	**Unit: Waves** ***Cluster: Communications Project for Upper Elementary Lessons* (ETS1.C, ETS2.A)** Lesson: Exploring a Communication Solution Lesson: Using Codes to Communicate Lesson: Developing a Communication Solution Lesson: Refining a Communication Solution Lesson: Demonstrating a Communication Solution Lesson: History of Communication Technology
	From Molecules to Organisms: Structures and Processes (LS1)	
	4-LS1-1. Construct an argument that plants and animals have internal and external structures that function together in a system to support survival, growth, behavior, and reproduction.	**Unit: Structures in Living Things** ***Cluster: Animals – Structure, Function, and Information Processing*** Lesson: Animal Structures Lesson: Human Body Structures and Functions Lesson: Observing Earthworms ***Cluster: Plants – Structure and Function*** Lesson: Plants Structures and Systems Lesson: Observing Plant Structures
	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.	**Unit: Structures in Living Things** ***Cluster: Animals – Structure, Function, and Information Processing*** Lesson: Investigating Earthworm Senses
	Earth's Place in the Universe (ESS1)	
	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.	**Unit: Our Geosphere** ***Cluster: Explaining Earth's Changes Lessons*** Lesson: Shaping the Earth Lesson: Fossils in Rock Layers
	Earth's Systems (ESS2)	
	4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.	**Unit: Our Geosphere** ***Cluster: Effects of Weathering and Erosion Lessons*** Lesson: Landscapes Change Lesson: Abrasion Weathers Rock Lesson: Glaciers Change Landscapes Lesson: Investigating Erosion and Deposition
	4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth's features.	**Unit: Our Geosphere** ***Cluster: A Moving Earth Lessons***

		Lesson: Moving Plates Create Landscapes Lesson: Mapping Earthquakes
	Earth and Human Activity (ESS3)	
	4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and how their uses affect the environment.	**Unit: Technology and Energy** ***Cluster: Energy for Human Technologies*** Lesson: Stored Energy and Fuels Lesson: Effects on Our Planet **(ETS2.A, ETS2.B)**
	4-ESS3-2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.	**Unit: Technology and Energy** ***Cluster: Energy for Human Technologies*** Lesson: Energy Conservation (**ETS1.B**, **ETS2.B**) **Unit: Our Geosphere** ***Cluster: Effects of Weathering and Erosion Lessons*** Lesson: Investigating Erosion and Deposition (**ETS1.B**, **ETS2.B**)
FIFTH GRADE		
5th Grade	**Matter and Its Interactions (PS1)**	
	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 **(ETS2.A)** ***Cluster: Mixing and Changing Matter*** Lesson: Modeling Mixtures
	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*** **(EST2.A** except Investigating Whatzit?**)** Lesson: Heating and Cooling Matter Lesson: Mixtures Lesson: Modeling Mixtures Lesson: Exploring Chemical Reactions
	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 **(ETS2.A)** Lesson: Identifying Materials' Properties **(ETS2.A)**
	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*** Lesson: Modeling Mixtures

		Lesson: Exploring Chemical Reactions Lesson: Investigating Whatzit?!
	Motion and Stability: Forces and Interactions (PS2)	
	5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.	**Unit: Earth in Space** ***Cluster: Gravity on Earth*** Lesson: Modeling Earth's Shape Lesson: Earth's Gravitational Force
	Energy (PS3)	
	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: Structures and Processes (LS1)	
	5-LS1-1. Support an argument with evidence that plants obtain materials they need for growth mainly from air and water.	**Unit: Ecosystems** ***Cluster: Producers*** Lesson: Plants as Producers
	Ecosystems: Interactions, Energy, and Dynamics (LS2)	
	5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	**Unit: Ecosystems** ***Cluster: Matter and Energy in Ecosystems*** Lesson: What Is an Ecosystem? Lesson: Matter and Energy Lesson: Players in an Ecosystem ***Cluster: Producers*** Lesson: Testing Plant Growth ***Cluster: Waste and Decomposers*** Lesson: Nature's Waste Matter Lesson: Nature Breaks It Down Lesson: Nature Cleans It Up Lesson: Worms: Consumers and Decomposers ***Cluster: Completing the Cycle*** Lesson: Nutrients Help Plants Lesson: Matter on the Move Lesson: Prairie Ecosystem
	Earth's Place in the Universe (ESS1)	

	5-ESS1-1. Support an argument with evidence that the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.	**Unit: Earth in Space** ***Cluster: Sun and Other Stars*** Lesson: Our Sun Is a Star
	5-ESS1-2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	**Unit: Earth in Space** ***Cluster: Daily Pattern of the Sun*** Lesson: Day and Night Lesson: Observing Shadow Patterns Lesson: Observing the Sun for a Day Lesson: Tracking Shadows During a Day Lesson: Models of the Sun and Shadow Lesson: Models of Daytime and Nighttime Lesson: Modeling Earth's Rotation **Unit: Earth in Space** ***Cluster: Sun and Other Stars*** Lesson: Seeing Stars from Earth Lesson: Earth's Orbit and Stars Lesson: Star Patterns
	Earth's Systems (ESS2)	
	5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	**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 ***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
	5-ESS2-2. Describe and graph the amounts of saltwater and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	**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
	Earth and Human Activity (ESS3)	
	5-ESS3-1. Evaluate potential solutions to problems that individual communities face in protecting the Earth's resources and environment.	**Unit: Earth's Systems** ***Cluster: Protecting Water Resources*** **(ETS1.B, ETS2.B)** Lesson: Water Is a Resource Lesson: Human Water Systems Lesson: Conserving Water at Home Lesson: Cleaning Polluted Water **Cluster: Human Impacts Project (ETS1.B, ETS2.B)** Lesson: Humans Affect the Environment Lesson: Investigating Human Impacts