

	Trimester 1 (Earth Science)	Trimester 2 (Physical Science)	Trimester 3 (Life Science)
Kindergarten	<p>K-ESS2 Earth's Systems</p> <ul style="list-style-type: none"> • K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time. • 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>K-ESS3 Earth and Human Activity</p> <ul style="list-style-type: none"> • K-ESS3-1. Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. • K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.* • K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.* 	<p>K-PS2 Motion and Stability: Forces and Interactions</p> <ul style="list-style-type: none"> • 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. • 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>K-PS3 Energy</p> <ul style="list-style-type: none"> • K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface. • K-PS3-2. Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on Earth's surface.* 	<p>K-LS1 From Molecules to Organisms: Structures and Processes</p> <ul style="list-style-type: none"> • K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

<p>1st Grade</p>	<p>1-ESS1 Earth's Place in the Universe</p> <ul style="list-style-type: none"> 1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted. 1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year. 	<p>1-PS4 Waves and Their Applications in Technologies for Information Transfer</p> <ul style="list-style-type: none"> 1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. 1-PS4-2. Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated. 1-PS4-3. Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light. 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>1-LS1 From Molecules to Organisms: Structures and Processes</p> <ul style="list-style-type: none"> 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.* 1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. <p>1-LS3 Heredity: Inheritance and Variation of Traits</p> <ul style="list-style-type: none"> 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>2nd Grade</p>	<p>2-ESS1 Earth's Place in the Universe</p> <ul style="list-style-type: none"> 2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly. <p>2-ESS2 Earth's Systems</p> <ul style="list-style-type: none"> 2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.* 2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area. 2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid. 	<p>2-PS1 Matter and Its Interactions</p> <ul style="list-style-type: none"> 2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. 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.* 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. 2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. 	<p>2-LS2 Ecosystems: Interactions, Energy, and Dynamics</p> <ul style="list-style-type: none"> 2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow. 2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.* <p>2-LS4 Biological Evolution: Unity and Diversity</p> <ul style="list-style-type: none"> 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

3rd Grade

3-ESS2 Earth's Systems

- 3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
- 3-ESS2-2. Obtain and combine information to describe climates in different regions of the world.

3-ESS3 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.

3-PS2 Motion and Stability: Forces and Interactions

- 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.
- 3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that that a pattern can be used to predict future motion.
- 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.
- 3-PS2-4. Define a simple design problem that can be solved by applying scientific ideas about magnets.*

3-LS1 From molecules to Organisms: Structures and Processes

- 3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

3-LS2 Ecosystems: Interactions, Energy, and Dynamics

- 3-LS2-1. Construct an argument that some animals form groups that help members survive.

3-LS3 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.
- 3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.

3-LS4 Biological Evolution: 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.
- 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, finding mates, and reproducing.
- 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.
- 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.

4th Grade

4-ESS1-1 Earth's Place in the Universe

- 4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers for changes in a landscape over time to support an explanation for changes in a landscape over time.

4-ESS2-1 Earth's Systems

- 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.
- 4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth's features.

4-ESS3-1 Earth and Human Activity

- 4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

4-PS3 Energy

- 4-PS3-1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.
- 4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents
- 4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide
- 4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.*

4-PS4 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 that waves can cause objects to move.
- 4-PS4-2. Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.
- 4-PS4-3. Generate and compare multiple solutions that use patterns to transfer information.*

4-LS1-1 From Molecules to Organisms: Structures and Processes

- 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- 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.

5th Grade

5.Earth's Systems

- 5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.
- 5-ESS2-2. Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.
- 5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

5.Space Systems: Stars and the Solar System

- 5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.
- 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.

5.Structure and Properties of Matter

- 5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen.
- 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.
- 5-PS1-3. Make observations and measurements to identify materials based on their properties.
- 5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

5.Matter and Energy in Organisms and Ecosystems

- 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.

5.Space Systems: Stars and the Solar System

- 5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.

5.Matter and Energy in Organisms and Ecosystems

- 5-LS1-1. Support an argument that plants get the materials they need for growth chiefly from air and water.
- 5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.