



FOSS Oklahoma Science Solutions

FOSS Correlation to Oklahoma Academic Standards for Science (Elementary Grades K-5)

	Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
GRADE K FOSS MODULES FOR OKLAHOMA				
K-PS2-1 Motion and Stability: Forces and Interactions Students who demonstrate understanding can: 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.	Materials in Our World	Materials in Our World	Materials in Our World	Materials in Our World
K-PS2-2 Motion and Stability: Forces and Interactions Students who demonstrate understanding can: 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.	Materials in Our World	Materials in Our World	Materials in Our World	Materials in Our World
K-PS3-1 Energy Students who demonstrate understanding can: Make observations to determine the effect of sunlight on Earth's surface.	Trees and Weather	Trees and Weather	Trees and Weather	Trees and Weather
K-PS3-2 Energy Students who demonstrate understanding can: Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	Animals Two by Two	Animals Two by Two	Animals Two by Two	Animals Two by Two
K-LS1-1 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: Use observations to describe patterns of what plants and animals (including humans) need to survive.	Animals Two by Two	Animals Two by Two	Animals Two by Two	Animals Two by Two
K-ESS2-1 Earth's Systems Students who demonstrate understanding can: Use and share observations of local weather conditions to describe patterns over time.	Trees and Weather	Trees and Weather	Trees and Weather	Trees and Weather
K-ESS2-2 Earth's Systems Students who demonstrate understanding can: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	Animals Two by Two Materials in Our World	Animals Two by Two Materials in Our World	Animals Two by Two	Animals Two by Two
K-ESS3-1 Earth and Human Activity Students who demonstrate understanding can: Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	Animals Two by Two	Animals Two by Two	Animals Two by Two	Animals Two by Two
K-ESS3-2 Earth and Human Activity Students who demonstrate understanding can: Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	Trees and Weather	Trees and Weather	Trees and Weather	Trees and Weather

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GRADE 1 FOSS MODULES FOR OKLAHOMA				
<p>1-PS4-1 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.</p>	Balance and Motion	Balance and Motion	Balance and Motion	Balance and Motion
<p>1-PS4-2 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: Make observations to construct an evidence-based account that objects can be seen only when illuminated.</p>			Balance and Motion	Balance and Motion
<p>1-PS4-3 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: 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>			Balance and Motion	Balance and Motion
<p>1-PS4-4 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: 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>	Balance and Motion	Balance and Motion	Air and Weather Balance and Motion	Air and Weather
<p>1-LS1-1 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: 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>	Plants and Animals	Plants and Animals	Air and Weather	Air and Weather
<p>1-LS1-2 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: Read text and use media to determine patterns in behavior of parents and offspring that help offspring survive.</p>	Plants and Animals	Plants and Animals	Plants and Animals	Plants and Animals
<p>1-LS3-1 Heredity: Inheritance and Variation of Traits Students who demonstrate understanding can: Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</p>	Plants and Animals	Plants and Animals	Plants and Animals	Plants and Animals
<p>1-ESS1-1 Earth's Place in the Universe Students who demonstrate understanding can: Use observations of the sun, moon, and stars to describe patterns that can be predicted.</p>	Air and Weather	Air and Weather	Air and Weather	Air and Weather
<p>1-ESS1-2 Earth's Place in the Universe Students who demonstrate understanding can: Make observations at different times of year to relate the amount of daylight and relative temperature to the time of year.</p>	Air and Weather	Air and Weather	Air and Weather	Air and Weather
<p>1-ESS3-1 Earth and Human Activity Students who demonstrate understanding can: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.</p>	Air and Weather	Air and Weather	Air and Weather	Air and Weather

	Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
GRADE 2 FOSS MODULES FOR OKLAHOMA				
2-PS1-1 Matter and Its Interactions Students who demonstrate understanding can: Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	Solids and Liquids	Solids and Liquids	Solids and Liquids	Solids and Liquids
2-PS1-2 Matter and Its Interactions Students who demonstrate understanding can: Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	Solids and Liquids	Solids and Liquids	Solids and Liquids	Solids and Liquids
2-PS1-3 Matter and Its Interactions Students who demonstrate understanding can: 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.	Solids and Liquids	Solids and Liquids	Solids and Liquids	Solids and Liquids
2-PS1-4 Matter and Its Interactions Students who demonstrate understanding can: Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	Solids and Liquids	Solids and Liquids	Solids and Liquids	Solids and Liquids
2-LS2-1 Ecosystems: Interactions, Energy, and Dynamics Students who demonstrate understanding can: Plan and conduct an investigation to determine if plants need sunlight and water to grow.	Insects and Plants	Insects and Plants	Insects and Plants	Insects and Plants
2-LS2-2 Ecosystems: Interactions, Energy, and Dynamics Students who demonstrate understanding can: Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Insects and Plants	Insects and Plants	Insects and Plants	Insects and Plants
2-LS4-1 Biological Unity and Diversity Students who demonstrate understanding can: Make observations of plants and animals to compare the diversity of life in different habitats.	Insects and Plants	Insects and Plants	Insects and Plants	Insects and Plants
2-ESS1-1 Earth's Place in the Universe Students who demonstrate understanding can: Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt
2-ESS2-1 Earth's Systems Students who demonstrate understanding can: Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt
2-ESS2.2 Earth's Systems Students who demonstrate understanding can: Develop a model to represent the shapes and kind of land and bodies of water in an area.			Pebbles, Sand, and Silt	Pebbles, Sand, and Silt
2-ESS2-3 Earth's Systems Students who demonstrate understanding can: Obtain information to identify where water is found on Earth and that it can be solid or liquid.	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt	Pebbles, Sand, and Silt

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GRADE 3 FOSS MODULES FOR OKLAHOMA				
<p>3-PS2-1 Motion and Stability: Forces and Interactions Students who demonstrate understanding can: Plan and conduct investigations on the effects of balanced and unbalanced forces on the motion of an object. (Connected to 3-PS2-2)</p>	Motion and Matter	Motion and Matter	Motion and Matter	Motion and Matter
<p>3-PS2-2 Motion and Stability: Forces and Interactions Students who demonstrate understanding can: Make observations and/or measurements of the object’s motion to provide evidence that a pattern can be used to predict future motion. (Connected to 3-PS2-1)</p>	Motion and Matter	Motion and Matter	Motion and Matter	Motion and Matter
<p>3-PS2-3 Motion and Stability: Forces and Interactions Students who demonstrate understanding can: Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.</p>	Motion and Matter	Motion and Matter	Motion and Matter	Motion and Matter
<p>3-PS2-4 Motion and Stability: Forces and Interactions Students who demonstrate understanding can Define a simple design problem that can be solved by applying scientific ideas about magnets.</p>	Motion and Matter	Motion and Matter	Motion and Matter	Motion and Matter
<p>3-LS1-1 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</p>	Structures of Life	Structures of Life	Structures of Life	Structures of Life
<p>3-LS2-1 Ecosystems: Interactions, Energy, and Dynamics Students who demonstrate understanding can: Construct an argument that some animals form groups that help members survive.</p>	Structures of Life	Structures of Life	Structures of Life	Structures of Life
<p>3-LS3-1 Heredity: Inheritance and Variation of Traits Students who demonstrate understanding can: 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>	Structures of Life	Structures of Life	Structures of Life	Structures of Life
<p>3-LS3-2 Heredity: Inheritance and Variation of Traits Students who demonstrate understanding can: Use evidence to support the explanation that traits can be influenced by the environment.</p>	Structures of Life	Structures of Life	Structures of Life	Structures of Life
<p>3-LS4-1 Biological Unity and Diversity Students who demonstrate understanding can: Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.</p>	Structures of Life	Structures of Life	Structures of Life	Structures of Life
<p>3-LS4-2 Biological Unity and Diversity Students who demonstrate understanding can: 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>	Structures of Life	Structures of Life	Structures of Life	Structures of Life

	Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
GRADE 3 FOSS MODULES FOR OKLAHOMA <i>(continued)</i>				
3-LS4-3 Biological Unity and Diversity Students who demonstrate understanding can: 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.	Structures of Life	Structures of Life	Structures of Life	Structures of Life
3-LS4-4 Biological Unity and Diversity Students who demonstrate understanding can: 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.	Structures of Life	Structures of Life	Structures of Life	Structures of Life
3-ESS2-1 Earth's Systems Students who demonstrate understanding can: Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.	Water and Climate	Water and Climate	Water and Climate	Water and Climate
3-ESS2-2 Earth's Systems Students who demonstrate understanding can: Obtain and combine information to describe climates in different regions of the world.	Water and Climate	Water and Climate	Water and Climate	Water and Climate
3-ESS3-1 Earth and Human Activity Students who demonstrate understanding can: Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.	Water and Climate	Water and Climate	Water and Climate	Water and Climate


	Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
GRADE 4 FOSS MODULES FOR OKLAHOMA				
4-PS3-1 Energy Students who demonstrate understanding can: Use evidence to construct an explanation relating the speed of an object to the energy of that object.	Motion, Force, and Models	Motion, Force, and Models	Motion, Force, and Models	Motion, Force, and Models
4-PS3-2 Energy Students who demonstrate understanding can: Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.	Motion, Force, and Models Energy and Electromagnetism	Motion, Force, and Models Energy and Electromagnetism	Motion, Force, and Models	Motion, Force, and Models
4-PS3-3 Energy Students who demonstrate understanding can: Ask questions and predict outcomes about the changes in energy that occur when objects collide.	Motion, Force, and Models Energy and Electromagnetism	Motion, Force, and Models	Motion, Force, and Models	Motion, Force, and Models
4-PS3-4 Energy Students who demonstrate understanding can: Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	Energy and Electromagnetism	Energy and Electromagnetism	Energy and Electromagnetism	Energy and Electromagnetism
4-PS4-1 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: Develop a model of waves to describe patterns in terms of amplitude and wavelength and to show that waves can cause objects to move.	Energy and Electromagnetism	Energy and Electromagnetism	Motion, Force, and Models Energy and Electromagnetism	Energy and Electromagnetism

	Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
GRADE 4 FOSS MODULES FOR OKLAHOMA <i>(continued)</i>				
<p>4-PS4-2 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.</p>	Energy and Electromagnetism	Energy and Electromagnetism	Energy and Electromagnetism	Energy and Electromagnetism
<p>4-PS4-3 Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can: Generate and compare multiple solutions that use patterns to transfer information.</p>	Motion, Force, and Models Energy and Electromagnetism	Motion, Force, and Models Energy and Electromagnetism	Motion, Force, and Models Energy and Electromagnetism	Motion, Force, and Models
<p>4-LS1-1 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</p>	Environments	Environments	Environments	Environments
<p>4-LS1-2 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: 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>	Environments	Environments	Environments	Environments
<p>4-ESS1-1 Earth's Place in the Universe Students who demonstrate understanding can: Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.</p>	Soils, Rocks, and Landforms Environments	Soils, Rocks, and Landforms Environments	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms
<p>4-ESS2-1 Earth's Systems Students who demonstrate understanding can: Plan and conduct investigations on the effects of water, ice, wind, and vegetation on the relative rate of weathering and erosion.</p>	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms
<p>4-ESS2-2 Earth's Systems Students who demonstrate understanding can: Analyze and interpret data from maps to describe patterns of Earth's features.</p>	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms
<p>4-ESS3-1 Earth and Human Activity Students who demonstrate understanding can: 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>	Soils, Rocks, and Landforms Energy and Electromagnetism	Soils, Rocks, and Landforms Energy and Electromagnetism	Energy and Electromagnetism	Energy and Electromagnetism
<p>4-ESS3-2 Earth and Human Activity Students who demonstrate understanding can: Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.</p>	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms	Soils, Rocks, and Landforms

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GRADE 5 FOSS MODULES FOR OKLAHOMA				
5-PS1-1 Matter and Its Interactions Students who demonstrate understanding can: Develop a model to describe that matter is made of particles too small to be seen.	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions
5-PS1-2 Matter and Its Interactions Students who demonstrate understanding can: 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.	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions
5-PS1-3 Matter and Its Interactions Students who demonstrate understanding can: Make observations and measurements to identify materials based on their properties.	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions
5-PS1-4 Matter and Its Interactions Students who demonstrate understanding can: Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions	Mixtures and Solutions
5-PS2-1 Motion and Stability: Forces and Interactions Students who demonstrate understanding can: Support an argument that the gravitational force exerted by the Earth is directed down.	Sun, Moon, and Planets	Sun, Moon, and Planets	Sun, Moon, and Planets	Sun, Moon, and Planets
5-PS3-1 Energy Students who demonstrate understanding can: 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.	Living Systems	Living Systems	Living Systems	Living Systems
5-LS1-1 From Molecules to Organisms: Structure and Processes Students who demonstrate understanding can: Support an argument that plants get the materials they need for growth chiefly from air and water.	Living Systems	Living Systems	Living Systems	Living Systems
5-LS2-1 Ecosystems: Interactions, Energy, and Dynamics Students who demonstrate understanding can: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	Living Systems	Living Systems	Living Systems	Living Systems
5-LS2-2 Ecosystems: Interactions, Energy, and Dynamics Students who demonstrate understanding can: Use models to explain factors that upset the stability of local ecosystems.	Living Systems	Living Systems	Living Systems	Living Systems
5-ESS1-1 Earth's Place in the Universe Students who demonstrate understanding can: Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.	Sun, Moon, and Planets	Sun, Moon, and Planets	Sun, Moon, and Planets	Sun, Moon, and Planets
5-ESS1-2 Earth's Place in the Universe Students who demonstrate understanding can: 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.	Sun, Moon, and Planets	Sun, Moon, and Planets	Sun, Moon, and Planets	Sun, Moon, and Planets

	Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
GRADE 5 FOSS MODULES FOR OKLAHOMA <i>(continued)</i>				
5-ESS2-1 Earth's Systems Students who demonstrate understanding can: Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	Weather on Earth	Weather on Earth	Weather on Earth	Weather on Earth
5-ESS2-2 Earth's Systems Students who demonstrate understanding can: 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.	Weather on Earth	Weather on Earth	Weather on Earth	Weather on Earth
5-ESS3-1 Earth and Human Activity Students who demonstrate understanding can: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	Weather on Earth	Weather on Earth	Weather on Earth	Weather on Earth

FOSS Oklahoma K–5 Scope and Sequence



Grade	Physical Science	Earth Science	Life Science
5	Mixtures and Solutions	Sun, Moon, and Planets Weather on Earth	Living Systems
4	Motion, Force, and Models Energy and Electromagnetism	Soils, Rocks, and Landforms	Environments
3	Motion and Matter	Water and Climate	Structures of Life
2	Solids and Liquids	Pebbles, Sand, and Silt	Insects and Plants
1	Balance and Motion	Air and Weather	Plants and Animals
K	Materials In Our World DSFR: Where is it? Is it moving?	Trees and Weather	Animals Two by Two

For a detailed correlations of the Oklahoma Academic Standards for Science, visit our website at www.deltaeducation.com/FOSSOK/Correlations.

Or for more information, or to schedule a presentation, contact your Regional Sales Manager

Verne Isbell

verne.isbell@schoolspecialty.com

817.239.4493

800.338.5270 x3656