

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
Unit 1: Summer Lessons					
K-ESS2.D.1 Use and share observations of local weather conditions to describe patterns over time.	K-ESS2-1 Use and share observations of local weather conditions to describe patterns over time.)	Planning and Carrying Out Investigations Analyzing and Interpreting Data	Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time.	Patterns Structure and Function Stability and Change	1A Signs of Summer 1B What is Weather?
K-PS3.A.1 Make observations to determine the effect of sunlight on Earth's surface. K-PS3.B.1 With prompting and support, use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. K-ETS1.B.1 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	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 an area. K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	Constructing Explanations and Designing Solutions	Conservation of Energy and Energy Transfer Sunlight warms Earth's surface and more sunlight means more warmth. Defining and Delimiting Engineering Problems Before beginning to design a solution, it is important to clearly understand the problem. Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. Optimizing the Design Solution Because there is always more than one possible solution to a problem, it is useful to	Patterns Cause and Effect: Mechanism and Prediction Scale, Proportion and Quantity Structure and Function	1C Testing our Cool 1D Tracking Temperatures 1E Keep It Cool, Bear!

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive. [Clarification Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and, that all living things need water.</p> <p>K.ESS3.A.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>K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>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>Asking Questions and Defining Problems</p> <p>Developing and Using Models</p> <p>Planning and Carrying Out Investigations</p>	<p>Organization for Matter and Energy Flow in Organisms</p> <p>All animals need food in order to live and grow. They obtain their food from plants or from other animals.</p> <p>Natural Resources</p> <p>Living things need water, air, and resources from the land, and they live in places that have the things they need.</p>	<p>Systems and System Models</p>	<p>1F What Lives in my Schoolyard?</p> <p>1G Bear-y Good Habitat</p>
<p>K.PS1.A.1 Make qualitative observations of the physical properties of objects</p> <p>K-PS2.A.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>K-PS2.A.2 Describe ways to change the motion of an object (i.e., how to cause an object to go slower, go faster, go farther, change direction, stop)</p>	<p>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>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>Developing and Using Models</p> <p>Analyzing and Interpreting Data</p> <p>Engaging in Argument from Evidence</p>	<p>Force and Motion</p> <p>Pushes and pulls can have different strengths and directions.</p> <p>Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it.</p> <p>Types of Interactions</p> <p>When objects touch or collide, they push on one another and can change motion.</p>	<p>Cause and Effect: Mechanism and Prediction</p>	<p>1H Pushy Bears</p>

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
Unit 2: Fall Lessons					
<p>K.ESS2.D.1 Use and share observations of local weather conditions to describe patterns over time.</p> <p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p>	<p>K-ESS2-1 Use and share observations of local weather conditions to describe patterns over time.</p> <p>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p>	<p>Planning and Carrying Out Investigations</p> <p>Analyzing and Interpreting Data</p> <p>Constructing Explanations and Designing Solutions</p> <p>Mathematical and Computational Thinking</p>	<p>Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time.</p> <p>Organization for Matter and Energy Flow in Organisms All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.</p>	Patterns	2A Bear Observations
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K.ESS1.B.1 Make observations during different seasons to relate the amount of daylight to the time of year.</p>	<p>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>1-ESS1-2 Make observations at different times of the year to relate the amount of daylight to the time of the year.</p>	<p>Planning and Carrying Out Investigations</p> <p>Obtaining, Evaluating and Communicating Information</p> <p>Analyzing and Interpreting Data</p>	<p>Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time.</p> <p>Organization for Matter and Energy Flow in Organisms All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.</p>	Cause and Effect	2B Losing Daylight
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K.PS3.A.1 Make observations to determine the effect of sunlight on the Earth's surface.</p>	<p>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K-PS3-1 Make observations to determine the effect of sunlight on Earth's surface.</p>	<p>Planning and Carrying Out Investigations</p> <p>Analyzing Data</p> <p>Modeling</p> <p>Mathematical and Computational Thinking</p> <p>Constructing Explanations and Designing Solutions</p> <p>Engaging in Argument from Evidence</p>	<p>Organization for Matter and Energy Flow in Organisms All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.</p> <p>Conservation of Energy Sunlight warms Earth's surface.</p>	<p>Cause and Effect</p> <p>Patterns</p> <p>Scale, Proportion, and Quantity</p>	<p>2C Wow! Bears Eat A lot!</p> <p>2D Bear Needs a Nap</p>

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K.ESS2.E.1 With prompting and support, construct an argument using evidence for how plants and animals can change the environment to meet their needs.</p> <p>K.ETS.1.A.1 Ask questions, make observations, and gather information about situations people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>K.ETS.1.B.1 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>K.ETS.1.C.1 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>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>K-2-EST1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>Asking Questions and Defining Problems</p> <p>Modeling</p> <p>Planning and Carrying Out Investigations</p> <p>Analyzing Data</p> <p>Mathematical and Computational Thinking</p> <p>Constructing Explanations and Designing Solutions</p> <p>Engaging in Argument from Evidence</p> <p>Obtaining, Evaluating, and Communicating Information</p>	<p>Types of Interactions When objects touch or collide, they push on one another and can change motion.</p> <p>Relationship Between Energy and Forces A bigger push or pull makes things speed up or slow down more quickly</p> <p>Force and Motion Pushes and pulls can have different strengths and directions.</p> <p>Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it.</p> <p>Defining Engineering Problems A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions.</p> <p>Organization for Matter and Energy Flow in Organisms All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.</p>	<p>Structure and Function</p>	<p>2E Finding a Den</p>

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
Unit 3: Winter Lessons					
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K.ESS1.B.1 Make observations during different seasons to relate the amount of daylight to the time of year.</p>	<p>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>1-ESS1-2 Make observations at different times of the year to relate the amount of daylight to the time of the year.</p>	<p>Planning and Carrying Out Investigations</p> <p>Analyzing Data</p> <p>Mathematical and Computational Thinking</p> <p>Constructing Explanations</p>	<p>Organization for Matter and Energy Flow in Organisms</p> <p>All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.</p>	<p>Patterns</p> <p>Cause and Effect</p> <p>Scale, Proportion, and Quantity</p>	3A Surviving the Cold
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p>	<p>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p>	<p>Planning and Carrying Out Investigations</p> <p>Analyzing Data</p> <p>Mathematical and Computational Thinking</p> <p>Obtaining, Evaluating, and Communicating Information</p>	<p>Defining and Delimiting an Engineering Problem</p> <p>Asking questions, making observations, and gathering information are helpful in thinking about problems (<i>secondary to K-PS2-2</i>)</p>	<p>Patterns</p> <p>Cause and Effect</p>	3B New Cubs!

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
<p>K.ESS2.E.1 With prompting and support, construct an argument using evidence for how plants and animals can change the environment to meet their needs</p> <p>K.ETS.1.B.1 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>K.ETS.1.C.1 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>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>K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>K-2-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs</p>	<p>Asking Questions and Defining Problems</p> <p>Modeling</p> <p>Planning and Carrying Out Investigations</p> <p>Analyzing Data</p> <p>Constructing Explanations and Designing Solutions</p> <p>Engaging in Argument from Evidence</p> <p>Obtaining, Evaluating, and Communicating Information</p>	<p>Natural Hazards Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events</p> <p>Defining and Delimiting an Engineering Problem Asking questions, making observations, and gathering information are helpful in thinking about problems (<i>secondary to K-PS2-2</i>)</p> <p>Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people</p> <p>Optimizing the Design Solution Because there is always more than one possible solution to a problem, it is useful to compare and test designs.</p>	<p>Structure and Function</p> <p>Stability and Change</p>	<p>3C Surviving the Storm</p>

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.	K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.	Asking Questions and Defining Problems Modeling Planning and Carrying Out Investigations Analyzing Data Mathematical and Computational Thinking Constructing Explanations and Designing Solutions	Organization for Matter and Energy Flow in Organisms All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. Biogeology Plants and animals can change their environment Defining and Delimiting an Engineering Problem Asking questions, making observations, and gathering information are helpful in thinking about problems (<i>secondary to K-PS2-2</i>) Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people	Patterns Cause and Effect	3D Wake Up, Bear!
Unit 4: Summer Lessons					
K-ESS2.D.1 Use and share observations of local weather conditions to describe patterns over time.	K-ESS2-1 Use and share observations of local weather conditions to describe patterns over time.	Analyzing and Interpreting Data Obtaining, Evaluating and Communicating Information	Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time.	Patterns Cause and Effect	4A Bear Observations

Missouri Learning Standards	Next Generation Science Standards	Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	Discover Nature Schools Kindergarten
MLS	NGSS	SEP	DCI	CCC	Lesson
<p>K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K.ESS2.E.1 With prompting and support, construct an argument using evidence for how plants and animals (including but not limited to humans) can change the environment to meet their needs.</p> <p>K.ESS3.A.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>K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>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>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>Planning and carrying Out Investigations</p>	<p>Organization for Matter and Energy Flow in Organisms Plants need water and light to live and grow.</p> <p>Biogeology Plants and animals can change their environment</p> <p>Natural Resources Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do.</p>	<p>Cause and Effect</p>	<p>4B Sprouting Seedlings</p> <p>4C Tree Takeover</p>
<p>K.ESS3.C.1 Communicate solutions that will reduce the impact of humans on the land, water, air, and or living things in the environment.</p>	<p>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>	<p>Obtaining, Evaluating and Communicating Information</p>	<p>Human Impacts on Earth Systems Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.</p>	<p>Stability and Change</p>	<p>4D Hungry, Again!</p>
<p>K.ESS1.B.1 Make observations during different seasons to relate the amount of daylight to the time of year.</p>	<p>1-ESS1-2 Make observations at different times of the year to relate the amount of daylight to the time of the year.</p>	<p>Planning and carrying Out Investigations</p> <p>Developing and Using Models</p>	<p>Earth and the Solar System Seasonal patterns of sunrise and sunset can be observed, described, and predicted.</p>	<p>Patterns</p>	<p>4E Sunshine Days</p>