

**Course Description:** This curriculum has been written to align with the revised MO Learning Standards for Science (approved by the state board of education in April of 2016). Science content has been integrated into our ELA curriculum. **\*\*Some science standards are addressed within Eureka Math Module 2.**

## Kindergarten Science Scope and Sequence

	Unit	Timeframe
1	<b>Weather</b>	<b>2 weeks</b>
2	<b>Plants and Animals</b>	<b>5 weeks</b>
3	<b>Spring Weather</b>	<b>2 weeks</b>
4	<b>Environment</b>	<b>2 weeks</b>
5	<b>Summer Fun</b>	<b>2 weeks</b>

<b>Weather</b>
<p><b>Standards addressed:</b>            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.ESS1.B.1 Make observations during different seasons to relate the amount of daylight to the time of year. [Clarification Statement: Emphasis is on relative comparisons of the amount of daylight in the winter to the amount in the spring or fall.]            K.ESS2.D.1 Use and share observations of local weather conditions to describe patterns over time.</p>
<p><b>Essential questions:</b>            How does the sun affect my world?            How can I protect myself from the sun?            What is it like on a sunny day?            How did our graph change over the days?            What is weather?            What are seasons? How many?</p>
<p><b>Learning targets:</b>            Students will discuss how the sun warms the earth.            Students will discuss how the sun provides light for the earth.            Students will discuss ways to build structures for shade to protect them from the sun.            Students will discuss how clothing and sunscreen can protect them from the sun.            Students will discuss weather patterns (seasons).            Students will participate in making a weather graph.</p>
<p><b>Content vocabulary:</b> sun, shadow, protect, heat, cool, weather, graphs, warmth</p>

<b>Resources</b> <i>Weather and Seasons, What Will the Weather Be Like Today, A Sunny Day, Weather (by Pamela Chanko), One Rainy Day, Move Over, Rover, Brown Bear, Brown Bear, Sunshine, The Super Sun, 1,2,3, to the Zoo</i>		
<b>Standard(s)</b>	<b>Topic</b>	<b>Number of Days</b>
K.ESS2.D.1	<b>Weather and Seasons</b>	2 days
K.PS3.A.1 K.PS3.B.1 K.ESS1.B.1 K.ESS2.D.1	<b>A Sunny Day</b>	3 days
K.ESS2.D.1	<b>Weather</b>	2 days

<b>Plants and Animals</b>		
<b>Standards addressed:</b> K.LS1.C.1 Use observations to describe patterns of what plants and animals (including humans) need to survive. 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. 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.		
<b>Essential questions:</b> What do plants and animals need in order to survive? Where does this animal live? What is its habitat? What do plants and animals need to survive? What do some animals do to change the environment for their habitats? (patterns of animals)		
<b>Learning targets:</b> Students will identify what is needed for animal survival. Students will identify what is needed for plant survival. Students will identify what is needed for human survival. Students will discuss different habitats. Students will illustrate an example of a habitat. Students will discuss patterns of plants and animals and retell information learned.		
<b>Content vocabulary:</b> habitats, needs, plant, animals, survive		
<b>Resources</b> <i>Plants and Animals all Around, Needs of Plants and Animals, Polar Bear, Moms do so Much, Mumble the Penguin, The Penguin Chick, All About Sea Turtles, Plants and Animals Live Here, What Animals Eat, Who Can Hop?, Hibernation Station, Little Bit of Winter, Duck!Rabbit!, It is Winter, Bear's New Friend, The Bear Snores On, Polar Bears are Wild, Polar Bears, Penguins, Cuddly Dudley, March of the Penguins, See the Snow, Penguins!, The Farm, Cool Penguins, Penguin, Penguin, Penguins Can't Fly, Who is Hiding the Snow?, What is Cold?</i>		
<b>Standard(s)</b>	<b>Topic</b>	<b>Number of Days</b>

K.ESS3.A.1	<b>Plants and Animals All Around</b>	2 days
K.LS1.C.1 K.ESS2.E.1	<b>Needs of Plants and Animals</b>	2 days
K.ESS2.E.1	<b>All About Sea Turtles</b>	2 days
K.ESS2.E.1 K.ESS3.A.1	<b>Plants and Animals Live Here</b>	2 days

<b>Spring Weather</b>		
<b>Standards addressed:</b> K.ESS2.D.1 Use and share observations of local weather conditions to describe patterns over time.		
<b>Essential questions:</b> How can I be safe in dangerous weather? How can I know about the weather?		
<b>Learning targets:</b> Students will discuss local weather patterns. Students will discuss dangerous types of weather. Students will discuss different ways to find out about the weather.		
<b>Content vocabulary:</b> weather, dangerous weather, tornado, drills, forecasting		
<b>Resources</b> <i>Mrs. McNosh Hangs up her Wash, Here is the Rain, Tornado Safety, Checking the Weather, City Storm, Spring is Here, Welcome Back ANimals, Waiting for Wings, Bear Feels Scared, "Whoosh" said the Wind, Planting a Rainbow</i>		
Standard(s)	Topic	Number of Days
K.ESS2.D.1	<b>Tornado Safety</b>	1 day
K.ESS2.D.1	<b>Checking the Weather</b>	2 days

<b>Environment</b>		
<b>Standards addressed:</b> K.ESS3.C.1 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.		
<b>Essential Questions:</b> How do humans affect the earth? What can I do to take care of the earth?		
<b>Learning targets:</b>		

Students will discuss the impact of humans on land, water, and air.  
 Students will discuss ways to reduce, reuse, recycle.  
 Students will recognize recyclable materials to reuse and how to make something new.

**Content Vocabulary:**

recycle, environment, resources

**Resources**

*The Earth and I, I Love the Earth, Reduce, Reuse, Recycle, New Again, Our Class is Going Green, Our Land, Water, and Air, Save our Tree, In My World*

Standard(s)	Topic	Number of Days
K.ESS3.C.1	<b>The Earth and I</b>	2 days
K.ESS3.C.1	<b>I Love the Earth</b>	2 days
K.ESS3.C.1	<b>Reduce, Reuse, Recycle</b>	2 days
K.ESS3.C.1	<b>New Again</b>	3 days

**Summer Fun**

**Standards addressed:**

K.ETS1.A.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.

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.ETS1.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.

**Essential questions:**

How can I make a model to analyze and investigate strengths and weaknesses of a given performance of an object?

What can I observe to gather information about developing new objects or tools to solve simple problems?

**Learning targets:**

Students will make a model.

Students will make observations.

Students will discuss the strengths and weaknesses of their model.

**Content vocabulary:**

model, observations, strengths, weaknesses

**Resources**

*Blowing Bubbles*

Standard(s)	Topic	Number of Days
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K.ETS1.A.1 K.ETS1.B.1 K.ETS1.C.1	<b>Blowing Bubbles</b>	3 days
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<b>Math</b>		
<b>Standards addressed:</b> K.PS1.A.1 Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass). 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. 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).		
<b>Essential questions:</b> How do pushes and pulls make things move in different ways? How can I use tools or objects to change the speed of an object?		
<b>Learning targets:</b> Students will discuss observations of the physical properties of objects (i.e. size, shape, color, mass) Students will participate in an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object and discuss the results Students will discuss ways to change the motion of an object (i.e. how to cause an object to go slower, faster, farther, change direction, stop)		
<b>Content vocabulary:</b> push, pull, fast, slow, stack, slide, motion, roll, ramp, 3D shapes, speed		
<b>Resources</b> Eureka Math		
Standard(s)	Topic	Number of Days
K.PS1.A.1 K.PS2.A.1 K.PS2.A.2	<b>Eureka Math Module 2</b>	10 days