



Scope and Sequence

Grade: Kindergarten Month: Fall

Content Area: Science

Sub Content/Unit: Unit 1, Living Things

What our students will know and be able to do	Learning Activities	Materials	Assessment tools	Notes
<ul style="list-style-type: none"> • Verify living VS nonliving things <ul style="list-style-type: none"> ○ K-ESS3-1: Use models to represent the relationship between the needs of different plants and animals and where they live. • Identify what living things need. <ul style="list-style-type: none"> ○ K-LS1-1: Use observations to describe patterns of what plants and animals need to live 	<p>BIG IDEA: How do plants and animals live and grow in different places?</p> <ul style="list-style-type: none"> • Introduction to science - what does it mean? How can we be scientists? Why? What are hypotheses? <ul style="list-style-type: none"> ○ Building expectations, what does it look like when we're being scientists? How does it look to sit? How does it 	<ul style="list-style-type: none"> • <i>Making a Habitat</i> - STEM project of the unit. <ul style="list-style-type: none"> ○ Requires various materials collected from outside, popsicle sticks, glue, fake grass or moss, color pencils, markers, cotton, anything else that students 	<ul style="list-style-type: none"> • Pre-assessment: Page Keeley Science Probe • Formative: Three-dimensional thinking questions, talk about it, inquiry activities, quick check, and the PKSP. • Summative: lesson reviews, McGraw-Hill lesson checks, and module test, vocabulary checks, and STEM module project. 	<p>Begin the big idea and general introduction of science during the month of September, and continue the inquiries with supplemental material about apples.</p> <ul style="list-style-type: none"> • Week 2 of school: Introduction to science • Week 3: Apples - what do you notice? What do you see? What do you test? • Week 4: Begin Unit 1 - this will transition into students having more background

<p>(survive).</p>	<p>look to use materials?</p> <ul style="list-style-type: none"> ● Living and Nonliving: Sorting things to find what living things are VS nonliving. <ul style="list-style-type: none"> ○ Making observations - going outside. ● Plant and Animal Survival: Plants needs - connection to apples and what apples need. How are they living? What do they need? ● Places Plants Live: more what they need to survive and what conditions those are. ● Places Animals Live: Where do certain animals live? Why? Where do certain plants grow? Why? <ul style="list-style-type: none"> ○ Going on multiple nature walks 	<p>might want.</p> <ul style="list-style-type: none"> ● <i>Hands on Activities:</i> gummy worms, soil, water, human food like apples. 		<p>knowledge into science and how to act like scientists.</p> <p>Unit 1 will begin at the end of September, or beginning of October, and continue until late November or early December.</p>
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Scope and Sequence

Grade: Kindergarten Month: Winter

Content Area: Science

Sub Content/Unit: Unit 2, Our Changing World

What our students will know and be able to do	Learning Activities	Materials	Assessment tools	Notes
<ul style="list-style-type: none"> • Changes to the Environment - Plants, animals, and people. <ul style="list-style-type: none"> ○ K-ESS2-2: Construct an argument supported by evidence for how plants and animals can change the environment to meet their needs. • Protect Earth - natural resources, R&R&R (reduce, reuse, recycle). <ul style="list-style-type: none"> ○ K-ESS2-2: Construct an argument 	<p>BIG IDEA: How do living things cause changes to their environments?</p> <ul style="list-style-type: none"> • Plants change their environment: Students will argue from evidence to explain how plants can change their environments to get what they need. • Animals change their environments: what about animals? How do they change their environments? <ul style="list-style-type: none"> ○ Additional incorporati 	<ul style="list-style-type: none"> • <i>Designing a Beaver Dam</i> - STEM Module project of the unit. <ul style="list-style-type: none"> ○ Requires various materials collected from outside, popsicle sticks, glue, fake grass or moss, color pencils, markers, cotton, anything else that 	<ul style="list-style-type: none"> • Pre-assessment: Page Keeley Science Probe • Formative: Three-dimensional thinking questions, talk about it, inquiry activities, quick check, and the PKSP. • Summative: lesson reviews, McGraw-Hill lesson checks, and module test, vocabulary checks, and STEM module project. 	<p>This Unit should begin around either the end of November, or the beginning of December and last until the end of January or mid-February.</p> <p>Recommendation for field trip to various farms, such as local ones like Detering, and watching documentaries about Beavers for more information on dams.</p>

<p>supported by evidence for how plants and animals can change the environment to meet their needs.</p> <ul style="list-style-type: none"> ○ K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and other living things in the local environment. ○ K-s-ETS1-1: 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 	<p>on of winter animals and hibernation, migration, and other seasonal patterns.</p> <ul style="list-style-type: none"> ● People change their environments: What do people need? How can we change the environment and how do we affect it? 	<p>students might want.</p> <ul style="list-style-type: none"> ● <i>Hands on Activities:</i> different types of soil, seeds. 		
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development of a new or improved object or tool.				
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Scope and Sequence

Grade: Kindergarten Month: Winter/Spring

Content Area: Science

Sub Content/Unit: Unit 3, Weather and the Sun

<i>What our students will know and be able to do</i>	<i>Learning Activities</i>	<i>Materials</i>	<i>Assessment tools</i>	<i>Notes</i>
<ul style="list-style-type: none"> ● Understand the weather and how it works, forms, and interacts with the world. Identify patterns and understand severe weather. <ul style="list-style-type: none"> ○ K-ESS2-1, K-ESS3-2. ○ K-2-ETS1-1 ● Students will be able to understand the relationship between the sun and weather along with how it affects humans and other living beings. <ul style="list-style-type: none"> ○ K-2-ETS1-1, K-2-ETS1-2, K-2-ETS1-3, K-PS3-1, K-PS3-2 	<p><i>BIG IDEA:</i> What is the weather like today? What do I need to know about the weather to stay safe?</p> <ul style="list-style-type: none"> ● Describe the weather: How can we measure the weather and what can we do to figure it out? How can we analyze it? ● Weather patterns: what do we notice from observing? What can we identify? Can we make a hypothesis? ● Forecast Weather: How can our predictions help us predict 	<ul style="list-style-type: none"> ● <i>Make a Forecast - STEM Module project.</i> <ul style="list-style-type: none"> ○ Requires various materials like crayons, magazines, poster board, scissors, and glue. ● <i>Hands on Activities:</i> materials for winsocks, rain gauge, straws, tape, heating lamp, wool, 	<ul style="list-style-type: none"> ● Pre-assessment: Page Keeley Science Probe ● Formative: Three-dimensional thinking questions, talk about it, inquiry activities, quick check, and the PKSP. ● Summative: lesson reviews, McGraw-Hill lesson checks, and module test, vocabulary checks, and STEM module project. 	<p>For the transition from unit 2 to unit 3, introduce more about weather. The beginning of this section should begin after winter break so you can also talk and discuss different weather that students have seen thus far.</p> <p>Part one of the unit, Weather, begins in February and continues until March. Deviate to learn more about precipitation in March, and start the section on the sun at the end of March, beginning of April.</p>

	<p>weather?</p> <ul style="list-style-type: none">● Severe Weather: what does it look like? How can we prepare? <p>BIG IDEA: What does the sun do?</p> <ul style="list-style-type: none">● Sunlight on Earth's surface: how does sunlight affect us and the things around us?● Protection from the Sun: how can we stay protected? What can we do? Does the sun affect other things?	<p>foam, batteries.</p> <ul style="list-style-type: none">● <i>Design a Structure to Make Shade - STEM Module project.</i><ul style="list-style-type: none">○ Requires various materials like butcher paper, tape, scissors, cardboard boxes and tubes, UV beads.● <i>Hands on Activities:</i> materials like foil, flashlights, candles, sunscreen (multiple types).		
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Scope and Sequence

Grade: Kindergarten Month: Spring/Summer

Content Area: Science

Sub Content/Unit: Unit 4, Make things Move

What our students will know and be able to do	Learning Activities	Materials	Assessment tools	Notes
<ul style="list-style-type: none"> ● Students will be able to understand the force and pull of objects, using speed and direction to better understand possible impact. <ul style="list-style-type: none"> ○ K-PS2-1, K-PS2-2, K-2-ETS1-1 	<p>BIG IDEA: How do objects move?</p> <ul style="list-style-type: none"> ● Push and pulls: students will focus on investigating and observing effects of different strengths of pushes and pulls on objects. Why does something move faster is you push it more? Why does it go slower? ● Direction and Speed: how does the direction change? Why does the speed change? How can we change the direction mid 	<ul style="list-style-type: none"> ● <i>Designing a Way to Change an Object's Direction</i> - STEM Module project of the unit. <ul style="list-style-type: none"> ○ Requires blocks, several large marbles, craft popsicle sticks, scissors, paper tubes, polymer clay, and sandpaper or various 	<ul style="list-style-type: none"> ● Pre-assessment: Page Keeley Science Probe ● Formative: Three-dimensional thinking questions, talk about it, inquiry activities, quick check, and the PKSP. ● Summative: lesson reviews, McGraw-Hill lesson checks, and module test, vocabulary checks, and STEM module project. 	<p>Unit 4 should begin around April, and continue until the end of May or early June.</p>

	<p>push?</p> <ul style="list-style-type: none">● When objects Collide: What happens if two objects in motion collide? Why do things crash? Why are some crashes worse than others?	<p>strength s.</p> <ul style="list-style-type: none">● <i>Hands on Activities:</i> marbles, play cars, blocks, different types of measurement, bottles full of sand, empty bottles.		
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