

<b>Subject and Grade:</b>	<b>Science Kindergarten</b>	<b>School Year:</b>	23-24
<b>Unit Title:</b>	<b>Animal Needs Unit: Why do different animals live in such different places?</b>	<b>Author/s:</b>	Ryan/Scanlan/Snyder

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<ul style="list-style-type: none"> <li>● K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</li> <li>● 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.</li> <li>● K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</li> <li>● K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Students obtain information through virtual observations of different animal behaviors. They use this evidence to explain that one of the basic needs of animals is food.</li> <li>❖ Students obtain information through media about how different animal homes are built. They use this evidence to explain that animals need shelter.</li> <li>❖ Students obtain information through virtual observations of different animal behaviors. They use this evidence to explain that one of the basic needs of animals is shelter.</li> <li>❖ Students take a nature walk to look for evidence of animal homes.</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
In this unit, students use observations to understand the basic needs of animals. Students explore how animals need things to eat and a safe place to live, and also how animals can change their environments to meet those needs.	Food Shelter Needs of animals

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<ul style="list-style-type: none"> <li>➤ Why do different animals live in different places?</li> <li>➤ How do animals stay safe where they live?</li> <li>➤ How do animals make their homes?</li> <li>➤ What's the best place for different kinds of animals?</li> </ul>	<p><a href="#">Lesson 1 Assessment</a>  <a href="#">Lesson 2 Assessment</a>  <a href="#">Lesson 3 Assessment</a>  <a href="#">Lesson 4 Assessment</a></p>	<p>14 Sessions (20-30 mins each)</p> <p>Unit Breakdown:</p> <ul style="list-style-type: none"> <li>• 1 Anchor Phenomenon</li> <li>• 4 Lessons &amp; Activities</li> <li>• 4 Anchor Connections</li> <li>• 4 Lesson Assessments</li> <li>• 4 Extensions</li> <li>• 1 Performance Task</li> </ul>

Differentiation/Enrichment	Materials	Resources
<p>Extensions include: Readings, videos, and activities.</p>	<p>Any supplies, outside of basic classroom 'tools' will be provided  All copies will need to be made by individual Classroom teachers</p>	<p><a href="#">Web Link</a>  <a href="#">Anchor Layer Teacher Guide</a>  <a href="#">Unit Pacing</a></p>

<b>Subject and Grade:</b>	<b>Science Kindergarten</b>	<b>School Year:</b>	23-24
<b>Unit Title:</b>	<b>Plant Needs: What are these giant things floating in the water?</b>	<b>Author/s:</b>	

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<ul style="list-style-type: none"> <li>• K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</li> <li>• K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Students make observations of plants in order to identify their needs and that they are, in fact, living things.</li> <li>❖ Students investigate to determine the basic needs of plants. They observe to identify ways young plants resemble the parent plant and how the plant changes as it proceeds through its life cycle.</li> <li>❖ Students obtain evidence of living organisms by virtually keeping watch of a log and the living things that visit it.</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
<p>In this unit, students use observations to understand the basic needs of plants, such as water and sunlight. They also observe young plants and the changes they undergo as they grow from seed to seedling.</p>	<p>living/non-living  Life cycle of a plant  Roots  Stem  Seed  Petals</p>

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<ul style="list-style-type: none"> <li>➤ Are plants alive?</li> <li>➤ How do plants and trees grow?</li> <li>➤ Why would you want an old log in your backyard?</li> </ul>	Lesson 1 Assessment- not yet available <a href="#">Lesson 2 Assessment</a> <a href="#">Lesson 3 Assessment</a>	12 Sessions (20-30 mins each) Unit Breakdown: <ul style="list-style-type: none"> <li>• 3 Lessons &amp; Activities</li> <li>• 2 Lesson Assessments</li> <li>• 3 Extensions</li> </ul> *Anchor Layer coming!"

Differentiation/Enrichment	Materials	Resources
Extensions include: Readings, videos, and activities.	Any supplies, outside of basic classroom 'tools' will be provided All copies will need to be made by individual Classroom teachers	<a href="#">Web Link</a> Anchor Layer Coming Soon! <a href="#">Unit Pacing</a>

<b>Subject and Grade:</b>	<b>Science Kindergarten</b>	<b>School Year:</b>	23-24
<b>Unit Title:</b>	<b>Severe Weather:</b>	<b>Author/s:</b>	

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<ul style="list-style-type: none"> <li>● K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</li> <li>● K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</li> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Students obtain information of different types of severe weather to observe and describe how the weather changes during these events and what students can do to prepare and stay safe.</li> <li>❖ Students create a simple tool that allows them to observe how hard the wind is blowing. They use this tool to observe weather changes and describe the pattern of faster wind speeds right before a storm.</li> <li>❖ Students obtain information through observations of the weather. They communicate the information by acting as weather watchers and creating drawings of the weather conditions.</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
<p>In this unit, students explore storms and severe weather! They obtain information from weather forecasts to prepare for storms and stay safe. They also practice describing the various characteristics of weather (wind, clouds, temperature, and precipitation) in order to make their own predictions about storms.</p>	<p>Storm Predict Observe</p>

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<ul style="list-style-type: none"> <li>➤ How can you get ready for a big storm?</li> <li>➤ Have you ever watched a storm?</li> <li>➤ How many different kinds of weather are there?</li> </ul>	<p><a href="#">Lesson 1 Assessment</a>  <a href="#">Lesson 2 Assessment</a>  <a href="#">Lesson 3 Assessment</a></p>	<p>11 Sessions (20-30 mins each)</p> <p>Unit Breakdown:</p> <ul style="list-style-type: none"> <li>• 3 Lessons &amp; Activities</li> <li>• 3 Lesson Assessments</li> <li>• 3 Extensions</li> </ul> <p>*Anchor Layer coming!</p>

Differentiation/Enrichment	Materials	Resources
<p>Extensions include: Readings, videos, and activities.</p>	<p>Any supplies, outside of basic classroom 'tools' will be provided  All copies will need to be made by individual Classroom teachers</p>	<p><a href="#">Web Link</a>  Anchor Layer Coming Soon!  <a href="#">Unit Pacing</a></p>

<b>Subject and Grade:</b>	<b>Science Kindergarten</b>	<b>School Year:</b>	23-24
<b>Unit Title:</b>	<b>Weather Patterns-Circle of Seasons: Why do these foxes change so much throughout the year?</b>	<b>Author/s:</b>	

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<ul style="list-style-type: none"> <li>● K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.</li> <li>● K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.</li> <li>● K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.</li> <li>● K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Students track the weather daily and analyze the data by collecting, recording, and sharing their observations to observe patterns of weather changing throughout the day and from day-to-day.</li> <li>❖ Students evaluate information in a series of unnamed drawings of each season. They use these clues to identify characteristics of each season and describe the yearly cyclical pattern.</li> <li>❖ Students identify the reasons why birds lay eggs in the spring. Then, they develop a bird nest model and use this model as evidence for how animals can change the environment to meet their needs.</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
<p>In this unit, students gather evidence in order to identify daily and seasonal weather patterns. They use those patterns to explain mysteries like why you might lose your jacket during the day or why birds lay their eggs at certain times of the year.</p>	<p>Seasons  Circle of seasons  Change  Winter, spring, summer, fall  Seasonal patterns</p>

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<ul style="list-style-type: none"> <li>➤ How do you know what to wear for the weather?</li> <li>➤ What will the weather be like on your birthday?</li> <li>➤ Why do birds lay eggs in the spring?</li> </ul>	<p><a href="#">Lesson 1 Assessment</a>  <a href="#">Lesson 2 Assessment</a>  <a href="#">Lesson 3 Assessment</a></p>	<p>14 Sessions  (20-30 mins each)</p> <p>Unit Breakdown:</p> <ul style="list-style-type: none"> <li>• 1 Anchor Phenomenon</li> <li>• 3 Lessons &amp; Activities</li> <li>• 3 Anchor Connections</li> <li>• 3 Lesson Assessments</li> <li>• 3 Extensions</li> <li>• 1 Performance Task</li> </ul>

Differentiation/Enrichment	Materials	Resources
<p>Extensions include: Readings, videos, and activities.</p>	<p>Any supplies, outside of basic classroom 'tools' will be provided  All copies will need to be made by individual Classroom teachers</p>	<p><a href="#">Web Link</a>  <a href="#">Anchor Layer Teacher Guide</a>  <a href="#">Unit Pacing</a></p>



<b>Subject and Grade:</b>	<b>Science Kindergarten</b>	<b>School Year:</b>	23-24
<b>Unit Title:</b>	<b>Sunlight &amp; Warmth: Sunny Skies</b>	<b>Author/s:</b>	

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<ul style="list-style-type: none"> <li>● K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.</li> <li>● K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.</li> <li>● K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.</li> <li>● K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.</li> <li>● K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.</li> <li>● K-PS1-1 Plan and conduct an investigation to test the claim that different kinds of matter exist as either solid or liquid, depending on temperature.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Students make observations of the pavement heating up after being warmed by the Sun. Then, they design a solution to build a shade structure that can reduce the warming effect of sunlight.</li> <li>❖ Students carry out an investigation to test which materials can redirect the light and heat of sunlight. (*This lesson has students increase the warming effect of sunlight on an area.)</li> <li>❖ Students construct an explanation for why marshmallows melt in one car and not in another car. Then, they conduct a virtual investigation to determine that the warmth of the Sun is the cause of the melted marshmallows.</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
<p>In this unit, students make observations to explore how sunlight warms the Earth's surface. The Sun's energy heats up the pavement, keeps us warm, and can even melt marshmallows. Using what they learn, students think about ways that shade and structures can reduce the warming effect of the Sun.</p>	<p>Solution Investigation Increase Cause and effect</p>

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<ul style="list-style-type: none"> <li>➤ How could you walk barefoot across hot pavement without burning your feet?</li> <li>➤ How could you warm up a frozen playground?</li> <li>➤ Why does it get cold in winter?</li> </ul>	<a href="#">Lesson 1 Assessment</a> <a href="#">Lesson 2 Assessment</a> <a href="#">Lesson 3 Assessment</a>	13 Sessions (20-30 mins each) Unit Breakdown: <ul style="list-style-type: none"> <li>• 1 Anchor Phenomenon</li> <li>• 3 Lessons &amp; Activities</li> <li>• 3 Anchor Connections</li> <li>• 3 Lesson Assessments</li> <li>• 3 Extensions</li> <li>• 1 Performance Task"</li> </ul>

Differentiation/Enrichment	Materials	Resources
Extensions include: Readings, videos, and activities.	Any supplies, outside of basic classroom 'tools' will be provided All copies will need to be made by individual Classroom teachers	<a href="#">Web Link</a> <a href="#">Anchor Layer Teacher Guide</a> <a href="#">Unit Pacing</a>

<b>Subject and Grade:</b>	<b>Science Kindergarten</b>	<b>School Year:</b>	23-24
<b>Unit Title:</b>	<b>Pushes &amp; Pulls: Force Olympics</b>	<b>Author/s:</b>	

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<ul style="list-style-type: none"> <li>● Foundational for 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.</li> <li>● Foundational for 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.</li> <li>● 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.</li> <li>● 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.</li> <li>● 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.</li> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Students observe different machines and use those observations as evidence for why machines make work easier.</li> <li>❖ Students observe construction equipment being used in different ways to move objects.</li> <li>❖ Students carry out an investigation to determine how far back they should pull a model wrecking ball to knock down a wall, but not the houses behind it.</li> <li>❖ Students play a game of bumper bowling to observe the way that objects can move in straight lines, zigzags, and back and forth.</li> <li>❖ Students conduct an investigation of how to protect a town from a falling boulder. They design a solution to safely guide the direction of the boulder away from the town.</li> <li>❖ Students define a problem they would like to solve and then design a solution using what they know about the locations of objects and how they can move.</li> </ul>

<b>Content Skills or Learning Targets</b>	<b>Assessments (Pre-Assessments, Formative, and Summative)</b>	<b>Timeframe</b>
<ul style="list-style-type: none"> <li>➤ What's the biggest excavator?</li> <li>➤ Why do builders need so many big machines?</li> <li>➤ How can you knock down a wall made of concrete?</li> <li>➤ How can we protect a mountain town from falling rocks?</li> <li>➤ How could you invent a trap?</li> </ul>	<a href="#">Lesson 1 Assessment</a> <a href="#">Lesson 2 Assessment</a> <a href="#">Lesson 3 Assessment</a> <a href="#">Lesson 4 Assessment</a> <a href="#">Lesson 5 Assessment</a> <a href="#">Lesson 6 Assessment</a>	22 Sessions (20-30 mins each) Unit Breakdown: <ul style="list-style-type: none"> <li>• 6 Lessons &amp; Activities</li> <li>• 6 Lesson Assessments</li> <li>• 6 Extensions</li> </ul> *Anchor Layer coming!

Brief Unit Summary	Content Vocabulary
<p>In this unit, students are introduced to pushes and pulls and how those affect the motion of objects. Students observe and investigate the effects of what happens when the strength or direction of those pushes and pulls are changed.</p>	<p>Forces  Observations  Investigation  Forces  Pull  Push</p>

Differentiation/Enrichment	Materials	Resources
<p>Extensions include: Readings, videos, and activities.</p>	<p>Any supplies, outside of basic classroom 'tools' will be provided  All copies will need to be made by individual Classroom teachers</p>	<p><a href="#">Web Link</a>  Anchor Layer Coming Soon!  <a href="#">Unit Pacing</a></p>