

<b>Subject and Grade:</b>	<b>Science First Grade</b>	<b>School Year:</b>	24-25
<b>Unit Title:</b>	<b>Light, Sound &amp; Communication</b>	<b>Author/s:</b>	Nicole Franklin/Jeannette Lutkins

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<p>1-PS4-1 Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.</p> <p>1-PS4-2. Make observations (firsthand or from media) to construct an evidence-based account that objects can be seen only when illuminated.</p> <p>1-PS4-3. 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> <p>1-PS4-4. 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> <p>K-2-ETS1: 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>	<ul style="list-style-type: none"> <li>● How do they make silly sounds in cartoons?</li> <li>● Where do sounds come from?</li> <li>● What if there were no windows?</li> <li>● Can you see in the dark?</li> <li>● How could you send a secret message to someone far away?</li> <li>● How do boats find their way in the fog?</li> </ul> <p>Anchor Phenomenon: How can animals make themselves heard and see in the darkness of night?</p> <ul style="list-style-type: none"> <li>❖ How do the alligators make sounds?</li> <li>❖ What other kinds of living things are in the Everglades?</li> <li>❖ How do we see light from fireflies?</li> <li>❖ Why do fireflies grow?</li> <li>❖ Why do animals make sound and light?</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
<p>In this unit, students investigate light and sound! They explore how materials vibrate and how vibrating materials can make sounds. They also investigate light and illumination and use those investigations to create simple devices that allow them to communicate across a distance.</p>	<p>Cause &amp; Effect            Vibration            Transparent            Opaque            Translucent            Communication</p>

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<p>I understand that vibrations make sounds.</p> <p>I understand the effect of placing objects made with different materials in the path of a beam of light.</p> <p>I can use materials to design and build a device with sound or light to communicate.</p>	<p><a href="#">L1 Assessment Worksheet</a></p> <p><a href="#">L2 Assessment Worksheet</a></p> <p><a href="#">L3 Assessment Worksheet</a></p> <p><a href="#">L4 Assessment Worksheet</a></p> <p><a href="#">L5 Assessment Worksheet</a></p> <p><a href="#">L6 Assessment Worksheet</a></p> <p><a href="#">Anchor Phenomenon Worksheet</a></p> <p>Observation of understanding</p>	<p>(20-30 mins each)</p> <ul style="list-style-type: none"> <li>• 6 Lessons &amp; Activities</li> <li>• 6 Lesson Assessments</li> </ul> <p>2 anchor phenomena</p> <p>Total: 14 days</p>

Differentiation/Enrichment	Materials	Resources

<b>Subject and Grade:</b>	<b>Science First Grade</b>	<b>School Year:</b>	24-25
<b>Unit Title:</b>	<b>Day Patterns: Sun &amp; Shadows</b>	<b>Author/s:</b>	Nicole Franklin/Jeannette Lutkins

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<p>1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.</p> <p>1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.</p>	<ul style="list-style-type: none"> <li>● Could a statue's shadow move?</li> <li>● What does your shadow do when you're not looking?</li> <li>● How can the Sun help you if you're lost?</li> <li>● Why do you have to go to bed early in the summer?</li> </ul> <p>Anchor Phenomenon: Why do shadows change so much over the course of every day?</p> <ul style="list-style-type: none"> <li>❖ Does the Sun always move in the same ways?</li> <li>❖ Does the Sun always rise and set in the same directions?</li> <li>❖ Where is the Sun during different times of the day?</li> <li>❖ Can we predict how things in the sky will move?</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
In this unit, students make observations of the Sun and shadows throughout the day and across the seasons. They use their observations to understand patterns that occur throughout the day.	Shadow Light source East West Direction

<b>Content Skills or Learning Targets</b>	<b>Assessments (Pre-Assessments, Formative, and Summative)</b>	<b>Timeframe</b>
<p>I can investigate what it takes to make a stationary object's shadow move.</p> <p>I can use flashlights and paper gnomes to explore how moving the position of a light makes shadows move.</p> <p>I can develop a model of the sun's daily path across the sky.</p>	<p><a href="#">L1 Assessment Worksheet</a></p> <p><a href="#">L2 Assessment Worksheet</a></p> <p><a href="#">L3 Assessment Worksheet</a></p> <p><a href="#">L4 Assessment Worksheet</a></p> <p><a href="#">Anchor Performance Task</a></p> <p>Observation of understanding</p>	<p>(20-30 min each)</p> <p>4 Lessons &amp; Activities</p> <p>4 Lesson Assessments</p> <p>2 Anchor Phenomenon lessons</p> <p>Total : 12 days</p>

Differentiation/Enrichment	Materials	Resources

<b>Subject and Grade:</b>	<b>Science First Grade</b>	<b>School Year:</b>	24-25
<b>Unit Title:</b>	<b>Night Patterns: Moon &amp; Stars</b>	<b>Author/s:</b>	Nicole Franklin/Jeannette Lutkins

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.	<ul style="list-style-type: none"> <li>• When can you see the full moon?</li> <li>• Why do the stars come out at night?</li> <li>• How can stars help you if you get lost?</li> </ul> <p>Anchor Phenomenon: Why does the moon look so different in different pictures?</p> <ul style="list-style-type: none"> <li>❖ Why can we see the Moon at night and during the day?</li> <li>❖ Do some stars stay in the same place instead of moving like the moon does?</li> <li>❖ Do we know when we can see the Sun, Moon and stars?</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
In this unit, students explore the Moon and stars. They observe and record the appearance of the Moon to determine its cyclical pattern. They also determine why stars are only visible at night.	<p>Moon shape &amp; patterns</p> <p>Visible</p> <p>Predictable</p>

<b>Content Skills or Learning Targets</b>	<b>Assessments (Pre-Assessments, Formative, and Summative)</b>	<b>Timeframe</b>
<p>I can describe the patterns of the sun, moon and stars.</p> <p>I can observe the sun, moon and stars and predict patterns.</p>	<p><a href="#">L1 Assessment Worksheet</a></p> <p><a href="#">L2 Assessment Worksheet</a></p> <p><a href="#">L3 Assessment Worksheet</a></p> <p><a href="#">Anchor Performance Task</a></p> <p>Observation of understanding</p>	<p>(20-30 min each)</p> <p>3 Lessons &amp; Activities</p> <p>3 Lesson Assessments</p> <p>2 Anchor Phenomenon lessons</p> <p>Total : 8 Days</p>

Differentiation/Enrichment	Materials	Resources

<b>Subject and Grade:</b>	<b>Science First Grade</b>	<b>School Year:</b>	24-25
<b>Unit Title:</b>	<b>Plant Traits &amp; Survival (Plant Superpowers)</b>	<b>Author/s:</b>	Nicole Franklin/Jeannette Lutkins

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
<p>1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</p> <p>1-LS1-1. 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> <p>K-2-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 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>	<ul style="list-style-type: none"> <li>● What will a baby plant look like when it grows up?</li> <li>● Why don't trees blow down in the wind?</li> <li>● What do sunflowers do when you're not looking?</li> </ul> <p>Anchor Phenomenon: What are these giant things floating in the water?</p> <ul style="list-style-type: none"> <li>❖ What does the bottom of a giant lily leaf look like?</li> <li>❖ Where do giant lilies grow best?</li> <li>❖ What are the tiniest water lilies?</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
In this unit, students explore the different parts of plants and how those parts are essential for plant survival.	Plant traits Offspring Plant survival Plant movement

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<p>I can identify the pattern that young plants are similar to their parent plants.</p> <p>I can observe three seedlings and three adult plants and use their observations to match each seedling to its adult counterpart.</p> <p>I can examine structures like roots, branches, and leaves that keep trees from blowing down.</p> <p>I can use their observations to create their own tree-inspired umbrellas that stay up in the wind.</p>	<p><a href="#">L1 Assessment Worksheet</a></p> <p><a href="#">L2 Assessment Worksheet</a></p> <p><a href="#">L3 Assessment Worksheet</a></p> <p><a href="#">Anchor Phenomenon Worksheet</a></p>	<p>(20-30 mins each)</p> <p>3 Lessons &amp; Activities</p> <p>3 Lesson Assessments</p> <p>2 Anchor Phenomenon Lessons</p> <p>Total: 8 Days</p>

Differentiation/Enrichment	Materials	Resources



<b>Subject and Grade:</b>	<b>Science First Grade</b>	<b>School Year:</b>	24-25
<b>Unit Title:</b>	<b>Animal Traits &amp; Survival Unit (Animal Superpowers)</b>	<b>Author/s:</b>	Nicole Franklin / Jeanette Lutkins

<b>NYS Next Gen Learning Standards</b>	<b>Essential Question/Big Ideas</b>
1-LS1-1 LS1.A: Structure & Function LS1.B: Growth and Development of Organisms 1-LS1-2 LS3.A: Inheritance of Traits LS3.B: Variation of Traits	<ul style="list-style-type: none"> <li>● How can you help a lost baby animal find its parents?</li> <li>● Why do birds have beaks?</li> <li>● Why do baby ducks follow their mother?</li> <li>● Why are polar bears white?</li> <li>● Why do my family members look alike?</li> </ul> <p>Anchor Phenomenon: How do so many different kinds of squirrels live in so many different kinds of places?</p> <ul style="list-style-type: none"> <li>❖ How do squirrel traits help them survive?</li> <li>❖ How do squirrels help their babies stay safe?</li> <li>❖ How do squirrels stay safe from other animals?</li> <li>❖ Are baby squirrels camouflaged like their parents?</li> <li>❖ How do animals take care of their babies?</li> </ul>

<b>Brief Unit Summary</b>	<b>Content Vocabulary</b>
<p>In this unit, students explore how the external characteristics of animals are essential for their survival. Students also make observations of parents and their offspring, determining how they are similar and how their behaviors help offspring survive.</p>	Offspring Traits Characteristics

Content Skills or Learning Targets	Assessments (Pre-Assessments, Formative, and Summative)	Timeframe
<p>I can explore the characteristics of animals that are essential for survival.</p> <p>I can observe how parents and offspring are similar.</p> <p>I can determine how their behavior help offspring survive.</p>	<p><a href="#">L1 Assessment Worksheet</a></p> <p><a href="#">L2 Assessment Worksheet</a></p> <p><a href="#">L3 Assessment Worksheet</a></p> <p><a href="#">L4 Assessment Worksheet</a></p> <p><a href="#">L5 Assessment Worksheet</a></p> <p><a href="#">Animal Homes Anchor Performance Task</a></p> <p>Observation of understanding</p>	<p>(20-30 min each)</p> <p>5 Lessons &amp; Activities</p> <p>2 Anchor Phenomenon Lessons</p> <p>Total: 12 days</p>

Differentiation/Enrichment	Materials	Resources
		<p><a href="#">Animal Superpowers</a></p>

