

# SAU 39 Grade 1 Science Curriculum



## Year Long Scope and Sequence:

	<b>Animal Superpowers (5-10 weeks)</b>	<b>Plant Superpowers (3-6 weeks)</b>	<b>Sun &amp; Shadows (4-8 weeks)</b>	<b>Moon &amp; Stars (3-6 weeks)</b>	<b>Lights &amp; Sounds (6-9 weeks)</b>
<b>Week 1</b>	How can you help a lost baby animal find its parents? <i>(1-LS3-1)</i>	What will a baby plant look like when it grows up? <i>(1-LS3-1)</i>	Could a statue's shadow move? <i>(1-ESS1-1)</i>	When can you see the full moon? <i>(1-ESS1-1)</i>	How do they make silly sounds in cartoons? <i>(1-PS4-1)</i>
<b>Week 2</b>	Why do birds have beaks? <i>(1-LS1-1)</i>	Why don't trees blow down in the wind? <i>(1-LS1-1, K-2-ETS1-2, K-2-ETS1-3)</i>	What does your shadow do when you're not looking? <i>(1-ESS1-1)</i>	Why do the stars come out at night? <i>(1-ESS1-1)</i>	Where do sounds come from? <i>(1-PS4-1)</i>
<b>Week 3</b>	Why do baby ducks follow their mother? <i>(1-LS1-2)</i>	What do sunflowers do when you're not looking? <i>(1-LS1-1)</i>	How can the sun help you if you're lost? <i>(1-ESS1-1)</i>	How can stars help you if you get lost? <i>(1-ESS1-1)</i>	What if there were no windows? <i>(1-PS4-3)</i>
<b>Week 4</b>	Why are polar bears white? <i>(1-LS1-1)</i>		Why do you have to go to bed early in the summer? <i>(1-ESS1-2)</i>		Can you see in the dark? <i>(1-PS4-2)</i>
<b>Week 5</b>	Why do family members look alike? <i>(1-LS3-1)</i>				How could you send a secret message to someone far away? <i>(1-PS4-4, K-2-ETS1-2)</i>
<b>Week 6</b>					How do boats find their way in the fog? <i>(1-PS4-4)</i>

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Unit Overview
Unit Title: Life Science - Animal and Plant Superpowers
Unit Summary
<p>Animal Superpowers - In this unit, students explore how parts of animals are essential for survival. Students also make observations of parents and their offspring, determining how they are similar and how their behaviors help offspring survive.</p> <p>Plant Superpowers - In this unit, students explore how parts of plants are essential for survival. Students also make observations of plant parents and their offspring, determining how they are alike and different.</p>
Approximate Time Needed
8 - 16 Weeks
Unit Foundation
Competencies
<ul style="list-style-type: none"><li>• Patterns</li><li>• Structure &amp; Function</li></ul>
Standards
<ul style="list-style-type: none"><li>• LS1.A</li><li>• LS1.B</li><li>• LS1.D</li><li>• LS3.A</li><li>• LS3.B</li><li>• ETS1.A</li><li>• ETS1.B</li><li>• ETS1.C</li></ul>
Curriculum Framing Questions
Enduring Understandings
<p><i>Students will understand...</i></p> <ul style="list-style-type: none"><li>• that offspring do not look exactly the same, but do have many traits in common with their parents.</li><li>• all plants and animals have structures that help them accomplish unique functions and help them survive.</li></ul>

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- patterns in animal behavior of parents and offspring help offspring survive.

### Essential Questions

*How do organisms live, grow, and respond to their environment?*

*How do the structures of organisms enable life's functions?*

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Unit Overview
Unit Title: Earth Space Science - Sun and Shadows / Moon and Stars
Unit Summary
<p>Sun and Shadows - In this unit, students observe that the Sun and shadows seem to move in patterns. Students make observations of the Sun and shadows throughout the day and across the seasons.</p> <p>Moon and Stars - In this unit, students observe that the Moon and stars seem to move in patterns in the sky. They also determine why stars are only visible at night.</p>
Approximate Time Needed
7- 14 Weeks
Unit Foundation
Competencies
<ul style="list-style-type: none"><li>● Patterns</li><li>● Cause &amp; Effect</li></ul>
Standards
<ul style="list-style-type: none"><li>● ESS1.A</li><li>● ESS1.B</li></ul>
Curriculum Framing Questions
Enduring Understandings
<p>Students will understand that...</p> <ul style="list-style-type: none"><li>● movement of shadows is caused by the pattern of the Sun's movement across the sky.</li><li>● the height of the Sun in the sky will affect a shadow's length and direction.</li><li>● there are more hours of daylight during the summer than there are in the winter.</li><li>● the Moon's phases follow a cyclical pattern that repeats every four weeks (each month).</li><li>● stars are only visible in the night sky.</li><li>● stars are in different places in the sky during different seasons.</li></ul>
Essential Questions
<i>What are the predictable patterns caused by Earth's movement in the solar system?</i>

## SAU 39 Grade 1 Science Curriculum

Unit Overview
Unit Title: Physical Science - Lights and Sounds
Unit Summary
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.
Approximate Time Needed
6 - 9 Weeks
Unit Foundation
Competencies
<ul style="list-style-type: none"><li>● Patterns</li><li>● Cause &amp; Effect</li></ul>
Standards
<ul style="list-style-type: none"><li>● PS4.A</li><li>● PS4.B</li><li>● PS4.C</li><li>● ETS1.B</li></ul>
Curriculum Framing Questions
Enduring Understandings
Students will understand... <ul style="list-style-type: none"><li>● the relationship between vibrations (cause) and sound (effect).</li><li>● the relationship between the type of material (cause) and the amount of light that can pass through it (effect).</li><li>● the relationship between light (cause) and being able to see objects (effect).</li><li>● that different light and sound signals form a pattern used for communication.</li></ul>
Essential Questions
<i>How can cause and effect relationships help predict or explain future events?</i> <i>How can patterns be used to predict results and solve problems?</i> <i>What is light? How can one explain the varied effects that involve light?</i> <i>How are instruments that transmit and detect waves used to expand human senses?</i>