



**First Grade Curriculum Pacing Guide  
Plants and Animals through the Year**

**Crosscutting Concepts:** Cause and Effect, Patterns, Systems and Systems Models

**Topics:** Parts of a plant, basic needs of plants and animals, weather

Estimated Time: 24 weeks or year-long segment

Anchoring Phenomenon	Standards	Instructional Segment	Disciplinary Core Ideas	Science and Engineering Practices	Instructional Notes
Plants and animals change depending on seasons and weather conditions. <a href="#">Time Lapse video of Trees through a Year in 40 Seconds</a>	<b>S1L1.a, b, c</b> <b>S1E1.a, b, c, d</b>	<b>Plants and Animals through the Year</b>	From <u>A Framework for K-12 Science Education</u> : <b>By the end of grade 2</b>  <b>LS1.A Structure and Function</b> <ul style="list-style-type: none"> <li>Plants have different parts (roots, stems, leaves, flowers, fruits) that help them survive, grow, and produce more plants.</li> </ul> <b>LS1.B Growth and Development of Organisms</b> <ul style="list-style-type: none"> <li>Plants and animals grow and change.</li> </ul> <b>LS1.C Organization for Matter and Energy Flow in Organisms</b> <ul style="list-style-type: none"> <li>All animals need food in order to live and grow.</li> <li>Plants need water and light to live and grow.</li> </ul> <b>LS2.A Interactions, Energy, and Dynamics</b> <ul style="list-style-type: none"> <li>Animals depend on their surroundings to get what they need, including food, water and shelter.</li> <li>Plants depend on air, water and light</li> </ul>	Asking questions and defining problems  Planning and carrying out investigations  Analyzing and interpreting data  Constructing explanations and designing solutions  Obtaining, evaluating, and communicating information	By the end of this unit, students are using the following language in their speaking and writing during EXPLAIN or ELABORATE: <ul style="list-style-type: none"> <li>Root</li> <li>Stem</li> <li>Leaf</li> <li>Flower</li> <li>Air</li> <li>Water</li> <li>Food</li> <li>Shelter</li> <li>Nutrients</li> <li>Light</li> <li>Basic needs</li> <li>Temperature</li> <li>Precipitation</li> <li>Solid</li> <li>Liquid</li> <li>Thermometer</li> <li>Wind Vane</li> <li>Rain Gauge</li> </ul>

			<p>to grow.</p> <p><b>LS2.B Cycles of Matter and Energy Transfer in Ecosystems</b></p> <ul style="list-style-type: none"> <li>Organisms obtain materials they need to grow and survive from environment.</li> </ul> <p><b>LS2.C Ecosystems Dynamics, Functioning, and Resilience</b></p> <ul style="list-style-type: none"> <li>When plants and animals cannot find enough food, water, or air, they may die.</li> </ul> <p><b>PS1.A Structure and Properties of Matter</b></p> <ul style="list-style-type: none"> <li>Different kinds of matter exist (e.g., wood, metal, water), and many of them can be either solid or liquid, depending on temperature.</li> </ul> <p><b>ESS2.C The Roles of Water in Earth's Surface Processes</b></p> <ul style="list-style-type: none"> <li>Water exists as solid ice and in liquid form.</li> </ul> <p><b>ESS2.D Weather and Climate</b></p> <ul style="list-style-type: none"> <li>Weather is a combination of sunlight, wind, snow or rain and temperature in a particular region at a particular time.</li> <li>People measure those conditions to describe and record the weather and to notice patterns over time.</li> </ul>		<ul style="list-style-type: none"> <li>Weather Patterns</li> <li>Weather Events</li> <li>Sky Conditions</li> <li>Rain</li> <li>Snow</li> <li>Sleet</li> <li>Hail</li> </ul>
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This segment connects to Sound and Light since plants and animals need light and make sounds.