

# Kindergarten - Unit 1 - A Plant's Life

## Unit Focus

In this unit, students will develop an understanding of how plants change and adapt to help them survive, grow, and meet their needs. Students will observe how plants grow and change over time by adopting a tree as well as exploring the life cycles of apples and pumpkins. Students will "adopt" a tree on campus in order to observe the changes it undergoes throughout the seasons.

## Stage 1: Desired Results - Key Understandings

Standard(s)	Transfer	
<p><b>Next Generation Science</b> <i>Elementary Standards: K</i></p> <ul style="list-style-type: none"> <li>Use observations to describe patterns of what plants and animals (including humans) need to survive. <i>K-LS1-1</i></li> <li>Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. <i>K-ESS3-1</i></li> </ul> <p><b>Next Generation Science Standards (DCI)</b> <i>Science: K</i></p> <ul style="list-style-type: none"> <li>All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. <i>LS1.0.C1</i></li> </ul> <p><i>Science: 1</i></p> <ul style="list-style-type: none"> <li>All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. <i>LS1.1.A1</i></li> </ul> <p><b>Student Growth and Development 21st Century Capacities Matrix</b> <i>Critical Thinking</i></p> <ul style="list-style-type: none"> <li>Analyzing: Students will be able to examine information/data/evidence to make inferences and identify possible underlying assumptions, patterns, and relationships. <i>MM.1.2</i></li> </ul> <p><i>Collaboration/Communication</i></p> <ul style="list-style-type: none"> <li>Product Creation: Students will be able to effectively use a medium to communicate important information (findings, ideas, feelings, issues, etc.) for a given purpose. <i>MM.3.2</i></li> </ul>	<p><b>T1</b> Make observations and ask questions to define a problem based on prior knowledge and curiosity that stimulates further exploration, analysis, and discovery.</p> <p><b>T2</b> Communicate effectively based on purpose, task, and audience to promote collective understanding and/or recommend actions.</p>	
	Meaning	
	Understanding(s)	Essential Question(s)
	<p><b>U1</b> All living things have basic needs in order to survive and grow.</p> <p><b>U2</b> All living things have different structures and behaviors that help them survive, grow, and meet their needs.</p> <p><b>U3</b> As nature changes, organisms must also change so that they can survive in the different seasons.</p>	<p><b>Q1</b> How do the different parts of a living thing help it survive?</p> <p><b>Q2</b> How do plants grow and change?</p> <p><b>Q3</b> How do seasons affect living things?</p>
	Acquisition of Knowledge and Skill	
	Knowledge	Skill(s)
<p><b>K1</b> Plants need water and light to live and grow. Leaves help the plant get light and roots help the plant get water.</p> <p><b>K2</b> Plants have different parts to help them survive and grow.</p> <p><b>K3</b> Seeds create new plants that are similar to the original plant.</p> <p><b>K4</b> Plants begin as seeds and have a predictable life cycle.</p> <p><b>K5</b> Plants change when the seasons change.</p> <p><b>K6</b> Vocabulary: leaf, stem, root, seed, fruit, season, interdependence, pollination, observation, life cycle</p>	<p><b>S1</b> Construct explanations for how plants use their parts to survive.</p> <p><b>S2</b> Conduct investigations to observe the functions of a plant and its parts, and use this information to create a model of a tree.</p>	