

WEEK 5 Lesson 1

Science and Engineering: Photosynthesis
 Children read a passage to learn about photosynthesis.

S & E Big Ideas	All living things need similar elements to survive. Like people, plants need food and they need air. The process of photosynthesis creates all the food that a plant needs to survive. Plants also breathe in the sense that they absorb carbon dioxide from the environment and release oxygen into the air. Plant respiration occurs through the small openings in the leaves.
S & E Guiding Question	Do plants and people need the same things to survive? Why do plants have leaves? Do plants breathe?
Content Objective	I can use text to help me understand new ideas about photosynthesis. (1-LS1-2)
Vocabulary	carbon dioxide: gas that plants breathe in from the air oxygen: gas that plants release into the air photosynthesis: the way plants make their own food
Materials and Preparation	<ul style="list-style-type: none"> ● Photosynthesis song ● Photosynthesis sheet, one per child ● Photosynthesis passage, one per child <p>Children will work in partners to complete the Photosynthesis sheet. Prepare partnerships if necessary.</p>
Opening 5 minutes	<p><i>Let's make a list of the five things animals (or people) need to survive. Now a list of the five things plants need. What's the same and what's different?</i></p> <p>If children need support, provide the following: ANIMALS: food, water, air, shelter, space; PLANTS: sun (energy), water, air, soil, space</p>
Investigation and Discussion 20 minutes	<p><i>Plants create their own food through a process called photosynthesis. Can you lay out in the sun and get breakfast? A plant can! Their roots draw up water and minerals from the soil. Their green leaves absorb energy from the sun and carbon</i></p>

	<p><i>dioxide (what we breathe out) from the air. This combines to create sugar (food) for the plant to grow and releases oxygen (what we breathe in).</i></p> <p>Show and sing the Photosynthesis song.</p> <p>As a whole group, read the Photosynthesis passage. Invite children's questions and connections.</p> <p>Children complete the Photosynthesis sheet in pairs.</p>
<p>Closing 5 minutes</p>	<p><i>If we don't have enough trees and green plants, what will happen to the oxygen we need to breathe?</i></p> <p>As a whole group, on the board, draw a picture of a plant and what it needs. Draw arrows to show what goes in and what comes out during photosynthesis.</p>
<p>Standards</p>	<p>1-LS1-2: Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</p>
<p>Ongoing assessment</p>	<p>What do children understand about photosynthesis? How do children show their understanding?</p>

Notes