

## Plant Life Activity Bank

### Plant Parts and Photosynthesis

**Note:** You may wish to carry out this discussion and experiment in conjunction with the “Plant Needs Experiment” activity.

Review the different parts of a plant, prompting children to explain their functions.

**Roots:** The roots anchor the plant in the ground. They absorb water and nutrients.

**Stems (and branches):** The stems carry water and nutrients from the roots underground to the leaves.

**Leaves:** Using water, air, and sunlight, the leaves make food for the plant. This process is called photosynthesis.

**Veins:** The veins carry water and nutrients to and from the leaves. They also provide structural support for the leaf, like a skeleton.

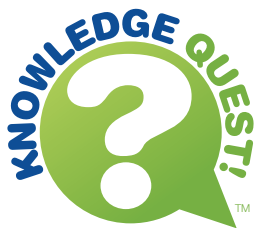
**Flowers:** Flowers make seeds for plants so more can grow over time.

**Fruit:** The fruit is a “suitcase” containing the seeds of the plant.

Discuss the many ways in which plants are helpful to animals. Explain to children that plants absorb significant amounts of harmful gases out of the air and in the process of photosynthesis, they release oxygen, which allows animals to breathe. Discuss that without sufficient sunlight, plants cannot produce food through the process of photosynthesis. Ask children to predict what would happen if part of a leaf were covered, preventing it from receiving proper sunlight. Explain to children that you will carry out a small experiment.

**Materials:** an indoor plant, cardboard, scissors, paper clips

Cut the cardboard into several geometric shapes large enough to cover nearly half of a leaf. Attach each shape onto a different leaf using a paper clip. Place the plant in a window where it can receive plenty of sunlight, tending it as usual. Have children record the daily weather and note how many hours of sunlight the plant receives each day. After a week, remove the shapes from the leaves and have children compare the parts of the leaves that were covered with the uncovered sections. Prompt discussion about the effects the lack of sunlight had on the covered leaf parts. Have children record the color of the covered leaf parts.



## Plant Life Activity Bank

### Plant Parts and Photosynthesis (continued)

Ask children where they have observed similar color-changing effects in nature. Help them recall that in autumn, the leaves on some trees change color and fall. (You may wish to explain how trees that lose their leaves seasonally are classified as deciduous and those that do not are classified as evergreen, giving examples of both.) Discuss how trees need sunlight in order to perform photosynthesis.

Prompt children to recall that as the seasons change from summer to autumn, the amount of sunlight lessens. Less sunlight means less photosynthesis is happening, which means the plant isn't able to make as much food. As a result, many trees and other green plants lose their leaves and are dormant through the winter.

#### CCSS

- Use words and phrases acquired through conversations, reading and being read to, and responding to texts. **KL**
- Participate in shared research and writing projects. **2W**

