



# Photosynthesis

## Objectives

Students will learn about how plants make their food through photosynthesis.

## Background

Unlike animals and people, plants make their own food through a process called photosynthesis. Photosynthesis allows plants to use sunlight, water, and air to make sugars for their food. This process happens in the green leaves of plants. The leaves take in sunlight, carbon dioxide from the air, and water from their roots and turn it into sugar and oxygen. The plants use the sugar for their energy and release the oxygen back out into the air which we and other animals rely on to breathe! Since animals and people can't make their own food, they rely on plants for their energy and need them to survive.

## Activity

- 1) Using the analogy of how people make their food in a kitchen, you will compare how photosynthesis is a recipe that plants use. Find some items (or can print page 2 or have students draw their own "ingredients") that can represent carbon dioxide, water, sugar, and oxygen and then label them. Next, put the items for water and carbon dioxide on a baking sheet and set into an oven. Leave the oven off but turn on the oven light to act as the sunlight (or set outside in the sun or by the window if you prefer). Then set a timer for about 10 to 15 minutes or however long you think you may need to do step 2.
- 2) While your students are waiting, switch the items in the oven (or outside) to sugar and oxygen without them noticing if possible.
- 3) When the timer goes off, check on your "plant" so they can see the outcome of the photosynthesis process.

### Age Group

Grades K-2

### Duration

20 mins

### Materials Needed

Optional:

Printed Materials

Art Supplies

Scissors

### Location

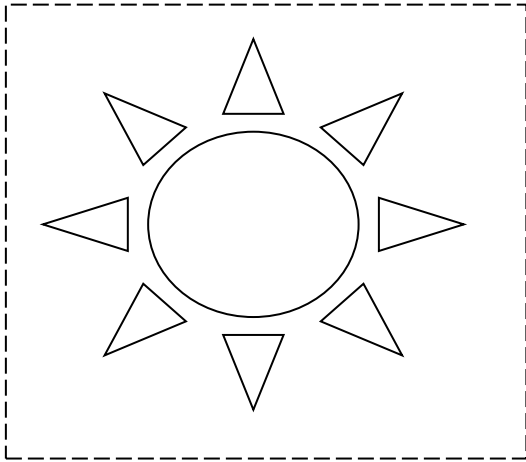
Indoors

### Grade Standards

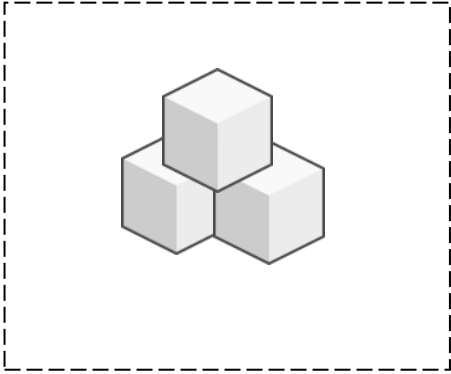
K = Structures and Functions of Living Organisms

1 = Ecosystems

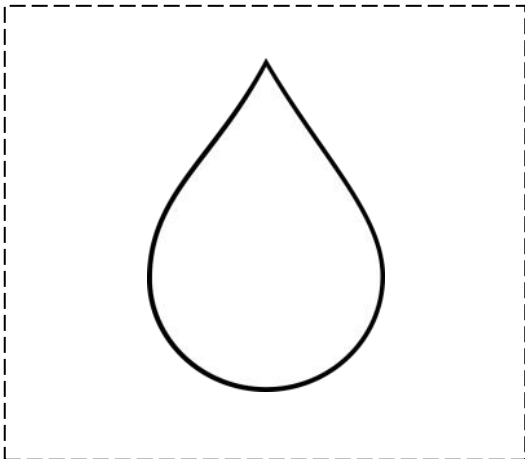
2 = Structures and Functions of Living Organisms



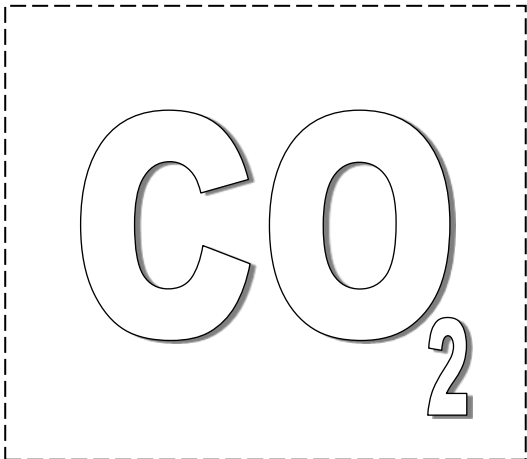
Sunlight



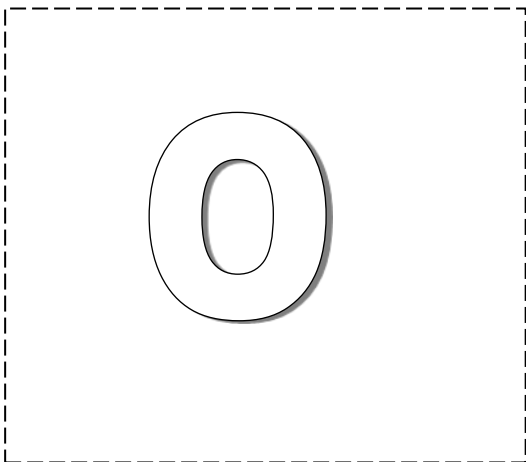
Sugar



Water



Carbon Dioxide



Oxygen