

Colorful Flowers

First Grade



Science: 2.b., 2.e.

Objective:

To teach students that a flower absorbs water through its stem and transports the water upwards to its petals.

Method:

Experimentation.

Materials:

Freshly cut white flowers (*NOTE: number of flowers depends on your budget*)

Cups

Markers

Water

Food coloring

Optional: stopwatch

Background Information:

Plants move water through their system using a series of straw-like tubes called xylem. The xylem carries water from the plants roots, through its stem, and out its leaves and petals. That is a very abstract concept until you do this activity.

Procedure:

1. Talk to the students about what a plant is.
 - a. *It has leaves, a stem, and roots.*
2. Explain that plants need to drink water, just like we do, in order to survive.
3. Distribute cups and markers to the students. Tell the students to write their name on their cup with a marker.
4. Ask the students to fill their cups halfway up with water.
5. Distribute food coloring to students. Instruct them to put 3 – 5 drops of food coloring in their water.
6. Pass out flowers. Discuss its appearance.
 - a. What part or its petals?
 - b. What part is its stem?
 - c. Does it look the same or different than other flowers you have seen?
7. Ask the students to put the flower into their cup.
8. Discussion
 - a. What color is the water that plants usually drink? *Clear or blue.*
 - b. What do you think will happen to the plant since we put it in colored water?

1. Place the flowers on the window sill, and tell the students that you all are going to check on them tomorrow to see if anything has happened.
2. The next day, check on the flower. The petals should have changed colors. That is because the xylem absorbed the colored water and transported it to the petals.
3. Discussion
 1. Why did the petals change color? *It drank colored water.*
 2. What would happen if we dyed the water a different color? *The petals would turn that color instead.*
 3. How does the water move through the plant? *From the stem to the petals.*