

# Science: Flowers of Color (2 Day Lesson)

**Description:** The children will learn of a process called **Capillary Action**.

## Time

Day One: 15-20 minutes

Day Two: 10-15 minutes

## Materials

4 white carnations with the stem cut at an angle

4- 18oz. clear plastic tumblers filled approximately halfway with water

3 food colors vials (red, blue, and green)

1 liter pitcher with water

4 straws

## Vocabulary

- **Capillary action** is the process that plants use to pull water through the stem.
- **Stem** is the stalk of a plant or flower.
- **Vial** is a small container that holds liquid or other elements.
- **Observation** is the process of using our sense to collect information.



# Science: Flowers of Color

## Lesson- Day One

1. Say to the children, "Today we are going to do an experiment". Encourage the children to repeat the word "experiment". Explain to the children an experiment is a test that is set up the same way each time with just one element changing.
2. Say to the children, "Today's experiment is called **Flowers of Color**".
3. Pass out the straws and the tumblers with the water. Have the children use the straw to take a sip of water. Explain to the children that the water is traveling through the straw to get to our bodies.
4. Show the children the carnation and identify the **stem**. Explain to the children that the **stem** serves as a straw that helps the water travel to the leaves and the flower, and this process is called **capillary action**.
5. Begin by having the children add about 20-30 drops of food coloring using the food color **vials** (the more color, the better) to the three clear plastic tumblers. No food color should be added to the fourth tumbler.
6. Give each child a carnation to place in their tumbler.
7. Say to the children, "We are going to make prediction". Explain to the children a prediction is a statement of something we think will happen in the future.
8. You can ask the children the following questions to create different **predictions**: How will teacher's carnation in the tumbler with just water compares to your carnations in the tumblers with colored water? Which color will be soaked up first? Which flower you think will be of a darker shade? And Will one of the colors create a deeper colored flower or will they all be the same shade?
9. Engage on a brief discussion about their predictions.
10. Explain to the children tomorrow we will come back to observe the results of our experiment and get the answers for our predications.

Tip: The process may take up to 24 hours; take this time for your children to document their observations.



# Science: Flowers of Color

## Lesson- Day Two

1. Show the children the carnations and engage in a brief discussion of what the children are observing. For example, if the child said, "This carnation turned green," you might want to respond, "The **observation** you are making is correct; the carnation did turn green; why do you think this happen?" If a child asked, "Why did the carnation in the tumbler with just water did not change color?" you might want to respond, "Why do you think the carnation in the cup with just water did not change color? Can it be because the water is a clear liquid and we did not add any food coloring like we did with the other three cups?"
2. Move on to explain to the children that carnations and all types of plants use their **stem** to "drink water" to provide it to the leaves and the flower.
3. Explain to the children that in this experiment we were able to see how the **capillary action** took place. By adding food coloring to the different tumblers; it allowed us to "see the movement of water" as it traveled through the stem onto the leaves and the flower ultimately changing the color of the carnation.