



California State University of Bakersfield, Department of Chemistry

## Colored Capillary Celery



### Standards:

L.2: All organisms need energy and matter to live and grow. As a basis for understanding this concept:

L.2.a: Students know plants are the primary source of matter and energy entering most food chains.

### Introduction:

*Everyone knows that plants need water to survive, but ever wonder how this process advances? Celery is a great example to show how this process actually works. With the help of food coloring we can see how advanced plants are.*

### Materials:

- 2 plastic cups
- ½ cup of water
- Food coloring
- Knife
- Celery stalks with leaves

### Safety:

- Always have an adult with you to help you during your experiment.
- Always wear eye protection and gloves when doing chemistry experiments

**Procedure:**

1. Add ¼ cup of water into each plastic cup.
2. Add a few drops of food coloring into each cup and stir.
3. Cut the bottom half of the celery off, leaving the top half with leaves on.
4. Place a celery stalk into each cup and wait 20-30 minutes before seeing results.

**Data and Observations:**

Draw two pictures to contrast.

Before absorption:

After absorption:

--	--

1. What happened to the leaves after the celery absorbed the water?
  
  
  
  
  
  
  
  
  
  
2. What action caused the celery to absorb the food coloring?

**References:**

1. [http://www.education.com/activity/article/celery\\_stick\\_science\\_first/](http://www.education.com/activity/article/celery_stick_science_first/).
2. Written and conducted by: Mike Griebeling, Evelyn Arce, Taylor O'Connor, Jessica Cruz, and Javier Chavez.