

CELERY SCIENCE

Have you ever bitten into a crisp, green stalk of celery or chopped it up to use in a salad? You probably have some in your refrigerator right now. Let's see if we can learn a new thing or two about this popular vegetable.



Celery plant from the grocery store



Celery tissue under 400x magnification

Celery is a light green vegetable with a central, tender heart and long, stringy, fibrous stalks that taper into darker green leaves. Celery is about 95 percent water and contains nutrients, vitamins, and minerals. It is a handy on-the-go snack as well as a vegetable used in cooked dishes, stir-fries, and salads. Celery seed is also used as a spice.

Want to try and turn that green stalk of celery a different color? You'll need:

- 3 leafy celery stalks
- water
- food coloring
- 3 clear, tall cups or jars

Fill the cups or jars with water. Add a different food coloring to each cup or jar. (Hint: darker colors will work best).

Wash and clean the celery. Cut about 1 inch off the bottom of each stalk.

Stand one celery stalk in each of the cups or jars. For something different, you can also split the celery lengthways along the lower half and then place each side of the split stalk in a different jar of colored water

Let the celery sit in the colored water for a few days. Predict what you think will happen and record your observations over the next few days by describing or drawing what you see.

What happened? Science, and capillary action, happened!

Capillary action is a process that lets water climb up to all the different parts of a plant through tiny tubes called *xylem*. Xylem tubes can be found inside plant stems, or the celery stalk, and they draw water up from the roots or base of the plant just like a straw. Water sticks to the xylem walls and starts to inch upward. It also sticks to itself, so it pulls more water along after it as it climbs. When the water is dyed with food coloring, then it's easy to see how far and how fast the water travels.

If you have some celery left over that you didn't use in your experiment, then try making this popular snack using celery stalks.



Recipe: Ants on a Log

prep time: 5 minutes, yield: 10 servings

5 stalks of celery

½ cup peanut butter

¼ cup raisins

Cut the celery stalks in half. Spread with peanut butter. Sprinkle with raisins. Enjoy! (For a savory snack, use cream cheese in place of the peanut butter.)

For more celery-related activities plus a few more yummy recipes, visit these websites:

<https://www.sciencefriday.com/educational-resources/lighting-up-celery-stalks/>

<https://www.scholastic.com/teachers/blog-posts/genia-connell/celery-science-kids-design-their-own-experiments-0/>

<https://www.womansday.com/food-recipes/food-drinks/recipes/a55811/celery-snails-caterpillars-recipe/>

<https://www.food.com/recipe/fish-in-the-river-156929>