Celebrate Capillary Action with Celery

Ever wondered how water makes its way up a plant from its roots? Capillary action is a phenomenon that occurs because water molecules are attracted both to each other and to other substances. These two forces—cohesion and adhesion—combine when water enters very thin tubes, jointly causing the water to “climb” straight to the top. It's easy to observe this amazing process in action. This simple science experiment shows your child how water overcomes gravity to pull itself to the tops of tall trees—or, in this case, to the tip of a stick of celery!

What You Need:

- Water
- 1 stalk of celery
- 2 small glasses
- A knife
- Red food coloring
- Blue food coloring

What To Do:

1. Have your child fill the two glasses with water. She should use the food coloring to dye one glass a deep red and the other a deep blue.
2. Slice about a centimeter of celery off of the bottom of the celery stalk. The newly cut stem will tend to draw water up more quickly.
3. Make a vertical slit about two inches long, in the bottom of the stalk. Then, arrange the stalk so that one side rests in the red cup and the other side rests in the blue cup. Try to set them in a place where they won’t get disturbed.
4. Encourage her to observe the celery over the next few hours and days. Quite soon after you place the celery in the colored water, she'll be able to see red and blue dots at the very top of the stalk. As time passes, the leaves will begin to turn red and blue—what a fun (and scientific) celery celebration!

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