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Walking Water

Activity Description

You can explore capillary action and color mixing by moving water from one cup to another!

Capillary action is the movement of water through the pores or spaces of material thanks to adhesion, cohesion, and surface tension. Capillary action occurs when adhesion forces the water molecules up the pores of an object, and then cohesion attracts other water molecules along the same path. These two properties cause water to be able to move upwards and "defy" gravity.

Materials

3	Clear cups of equal height
2	Half-sheet paper towel
	Water
Various	Food coloring
1	Spoon

Preparation and Safety

Find a spot where your experiment won't be disturbed, gather your supplies and get started!

Procedure

1. Position your cups about an inch or so apart from each other. Pour water into every other cup, filling each one about ¾ full.

2. Add a few drops of food coloring into the water and stir until the water is one color. Try adding a different color to each cup of water to see what happens!

3. Grab a sheet of paper towel and then fold it twice ways to make a long then strip of paper towel.

4. Fold the long strip of paper towel in half creating an upside down "V."

5. Place one end of the paper towel "V" in the cup of water and the other end in the empty cup. Repeat this until all the cups are connected.

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Procedure (continued)

6. Once all the cups are connected, leave the cups for about an hour.

7. Return to the experiment and observe what happened. Do all the cups have water in them? Are there more colors than you began with? What do you think happened?

Extensions or Adaptations

- If food coloring is not available, skip step two.
- Make a hypothesis about what might happen if you combine certain colors of water with a paper towel bridge.
- Feel free to add as many cups to your experiement as you have!
- Try this experiment with 5 cups. Place 2 full cups on either end and 3 empty cups between. Can you get water to the middle empty cup?