

Walking Water

Have you ever wondered why paper towels are so good at picking up water when we have spills? Well, wonder no more! We are here to explain it.

The reason paper towels can work really well to pick up water is because of something called **capillary action**. *Capillary action* happens where there are small or narrow spaces that water can flow into. This helps paper towels absorb the water when it is spilled. Sometimes, water can even defy gravity while flowing into these spaces like in tall flowers. Think about the big tall sunflowers; they have to get water from the ground and send it all the way up the stem to get to the leaves, flowers, and seeds!

Supplies:

- 3 small jars or cups
- 2 white paper towels (or 1 square paper towel)
- Water
- Food coloring



Procedure:

1. Line your jars up in a straight line.
2. In the two outside jars, add water until the jars are about half full. Leave the middle jar empty.
3. Add food coloring to the jars with water. Choose one color for each jar. Make sure the colors are different.
4. If you are using a square paper towel, you will need to cut it in half before the next steps. You are going to make two thick paper towel strips.
5. Fold one of your paper towels lengthwise, then fold it lengthwise again. Do this with your other paper towel. You should have two long folded paper towel strips.
6. Place one end of one of your paper towel strips into the far left jar with water. Place the other end in the middle jar without water.
7. Using your other paper towel strip, do the same with the far right jar.
8. Give it some time and watch as the water walks from one jar to the other!

Extra: You can do this with white flowers too! Try filling a jar or cup with water and food coloring just like before and place a white flower with a cut stem into the jar.

What happens to the flower petals?



Paper towels are made from cellulose, a substance found in plants (paper products come from trees!), which is **hydrophilic**. When an object is *hydrophilic*, it means that it is attracted to water. When plants need water, they are able to use capillary action to bring water up through their roots and spread throughout its stem, leaves, flowers, and/or fruits.