

Walking Water

You will need:

- Two glasses
- String
- Water
- Food colouring (optional)
- Tape



1. Tape one end of the string inside the bottom of a glass.
2. Fill the other glass with water (and food colouring if you want) and put the free end of the string in the water (not taped).
3. Lift the cup with water up above the other, but not directly over it. Hold it far enough that the string is taut. Be careful not to pull the string out of either cup.
4. Slowly pour the water out of the top cup onto the string. Remember to keep it taut at all times. Observe what happens.
5. Now, soak the entire string in water and try again. You should be able to pour the water straight from the top cup to the bottom cup through the string.

THE SCIENCE

Water molecules like to stick to things - including themselves.

Sticking to things is called *adhesion* and sticking to itself is called *cohesion*. When you first poured the water, although water molecules were attracted to the string, adhesion wasn't as strong as gravity pulling the water down. After soaking the string in water, water molecules were attracted to the string and were also attracted to the water molecules in the string. Adhesion and cohesion together prevented the water from dripping straight down. Instead, the water flowed along the string down to the bottom cup.



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