



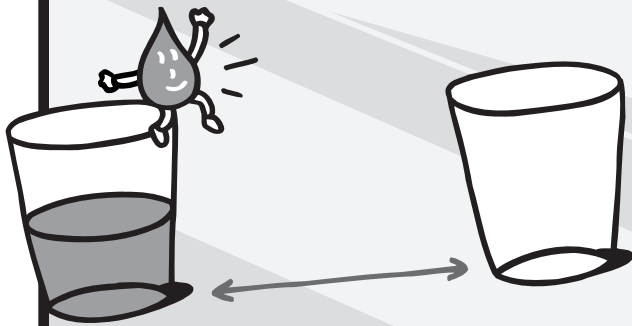
Water on a String

What You Need

- newspaper
- 3 paper cups
- water
- ruler
- 3-foot piece of cotton string
- tape

Can you move water with a piece of string?

- 1 Cover** your work surface with newspaper.
- 2 Fill** one cup with water.
- 3 Put** a second cup **two feet** from the full cup and keep it this far away the whole time.
- 4** Your challenge is to **move** the water from the full cup to the empty cup. The only thing you can use besides the cups is **string** and **tape**. (You can use the other empty cup to catch spilled water.)
- 5 Experiment!** Keep trying until it works.



Now it's time for you to **experiment**. What happens if you use **two strings** instead of one? (Try **spreading** them out to make a water bridge.) Or, what happens if you use a **different kind of string**? Choose **one thing** to change (that's the variable) and **predict** what you think will happen. Then **test it** and **send** your results to ZOOM at pbskids.org/zoom

Sent in by Alicia C. of Sheffield, AL

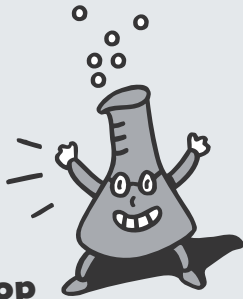


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Water on a String



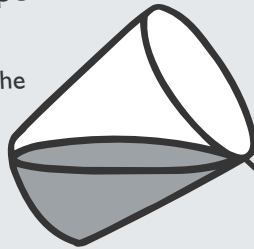
Science Scoop

To get the water from the full cup to the empty cup, you have to make it **travel** down the string. Here's how to do it. First, **soak** the string in water. Then **tape** one end of the string inside the empty cup. **Hold** the other end of the string at a steep angle and slowly **pour** the water down the string.

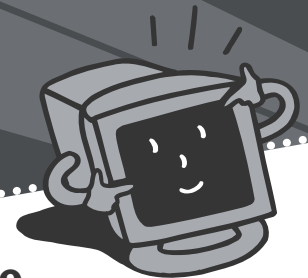
When you do this, water **clings** to the string and **travels** down into the cup. This is because water molecules are **attracted to other kinds of molecules**, like those that make up the string.

This is called **adhesion**. Water molecules are also strongly **attracted to each other**. This is called **cohesion**. Water molecules are sticking to the string and they're sticking to each other. That is how they can travel down the string.

You can see cohesion and adhesion in action when you **take a shower**. If you raise your hand, water runs down your arm. That's because the water molecules stick together (**cohesion**) and stick to you (**adhesion**).



What Did You Try?



Visit the ZOOM Web Site!

- Keep experimenting with water by trying **Water Density** and **Floating Paper Clips** at pbskids.org/zoom/sci
- Send an idea for a new science activity to ZOOM at pbskids.org/zoom