



Science Activity

Rainbow walking water

Time to prepare: 10 minutes



□ Please, stay safe and ask a grown up to supervise you

Resources/ things you need

- 7 small jars/ glasses/ plastic cups
- Food colouring (the 3 primary colours red, yellow, and blue)
- Water
- Scissors
- Paper towels (the thicker the better)

What to do

1. Arrange the 7 cups in a line.
2. Fill **every other** jar starting with the first about 3/4 of the way up with water.
3. Add the food colouring. Put a good squirt of red to the first **and** the last jar, yellow to the third jar, and blue to the fifth jar. Only the jars with water get the food colouring. So: red, skip a jar, yellow, skip a jar, blue, skip a jar, then red again.
4. Fold 6 paper towels in half and then in half again so you have long, thin paper towels. Depending on how tall your cups are, you'll want to cut a good inch or so off the end with scissors so the paper towels don't stick up in the air too much. Repeat that step with the rest of the paper towels.
5. Put one end of a folded paper towel in the first jar and the other end in the second jar. Take another and put one end in the second jar and the other end in the third jar. Repeat until you have a zigzag of paper towels going from the first jar to the last. (See picture below).
6. Watch the magic happen! The once empty jars are now filling up with the 2 colours from the jars on each side and mixing!

Background and the link to learning

The water looks like it is defying gravity by travelling upwards. It is actually a process called **capillary action** which is how liquid can move up something, rather than follow the usual pull of gravity and pull down (just like how plants pull water from the soil and up into their leaves.) The water is pulled up through tiny gaps between the fibres in the paper towel, wicking each colour up out of one jar and down into the next.

Pictures



Once the paper towels pull colour from the primary colour jars, it creates the secondary colours of green, purple, and orange, completing the rainbow.



[Link to other similar activities](#) - Please see [rainbow colours](#), [invisible ink](#) and [lava lamp](#)

