

Walking water

Make water hop from one glass to another.

THE LAB

Eight pages of things to make and do



What you need

- 4 sheets of kitchen paper
- 5 small glasses
- Jug of water
- Red, yellow and blue food colouring

Instructions

- 1** Fold each sheet of kitchen paper in half lengthways. Now fold them lengthways again so that you have four thin strips.
- 2** Place the five glasses in a row. Pour water into the first, third and fifth glasses, so that they are each about two-thirds full.
- 3** Add a few drops of red food colouring to the first glass, a few drops of yellow to the third glass, and a few drops of blue to the fifth glass.
- 4** Use the four strips of kitchen paper to link each glass to its neighbour. Make sure that the ends of the strips are on or just above the bottom of each glass.
- 5** Watch as the water climbs out of the glasses. As it mixes, the colour of the water changes.

WARNING!
Food colouring can stain, so ensure that clothing and surfaces are protected.



Fold the sheets of kitchen paper into thin strips.

How does it work?

The process that allows the water to climb up and out of the glasses is called capillary action. This effect is caused by attraction between individual molecules in a liquid. The attraction pulls water into droplets and is strong enough to act against the downward force of gravity. Plants use capillary action to draw water from the ground up through their roots and to their leaves. It's also why a cloth soaks up spills. In this experiment, you will see that water flows faster between glasses when the levels are different, and stops flowing when the levels are equal.

Did you make the coloured water walk? Send your photos and videos to scienceandnature@dennis.co.uk

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