

## Tie Knots in Water

Try this experiment. It shows the power of **surface tension**.

Find an old plastic container. Ask an adult to make a row of 5 holes near the bottom, about  $\frac{1}{4}$  inch (0.6 cm) apart. Fill the container with water from a faucet. You should see 5 streams of water coming out of the holes. Now use your fingers to push the streams together. The surface tension makes the separate streams join into one or two large streams. You can separate them again if you brush your hands over the holes.



## Glossary

**atom** the smallest particle of a liquid, solid, or gas.

**boil** turn into gas very rapidly.

**condense** turn from a gas into a liquid.

**evaporate** turn from a liquid into a gas.

**freeze** turn from a liquid into a solid.

**gas** one of the three states of matter. Gases have no shape and spread out to fill all the space.

**liquid** one of the three states of matter. A liquid can be poured into a container.

**melt** turn from a solid into a liquid.

**mercury** a type of metal that is normally a liquid.

**metal** a hard, shiny, usually solid material, such as iron or gold.

**molecule** a group of atoms.

**oil** a liquid that floats on water.

**solid** one of the three states of matter. Solids are hard and keep their shape.

**states of matter** the three forms in which all matter exists. They are solids, liquids, and gases.

**surface tension** a force that creates a kind of skin on water.

**water vapor** the gas that forms when water evaporates.

## Look Further

To find out more experiments you can carry out with water, read *101 Great Science Experiments* by Neil Ardley (DK Publishing).

You can also find out more about the states of matter from the internet at this website: [www.chem4kids.com/](http://www.chem4kids.com/)