

Science Experiment

Did you know that you can grow your own rainbow?

You will need a scientific process called the **capillary action**. This action happens when a liquid moves up through a hollow tube or into a spongy, solid material. It happens when three forces work together: **cohesion**, **adhesion** and **surface tension**.

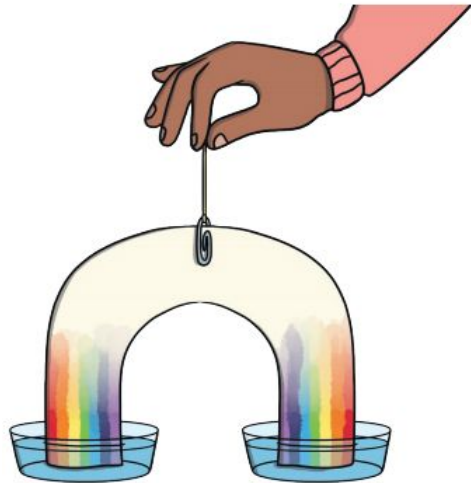
Water molecules like to stick to each other - this is called **cohesion**. They also like to stick to solids in a process called **adhesion**.

In this experiment, you are going to use kitchen roll. The fibres in kitchen roll have lots of little holes. Water is **absorbed** through the kitchen roll because when the first water molecule **adheres** to it and begins to move upward, it pulls the next water molecule up with it, like a chain.

What To Do:

1. Cut the kitchen roll into the shape of a rainbow.
2. At each end, use the felt-tip pens to colour a rainbow about 2cm up from the bottom. Remember the order of the colours: red, orange, yellow, green, blue, indigo, violet.
3. Attach the paperclip to the top of the rainbow and tie a piece of thread to it. This will allow you to hold your rainbow.
4. Add water to the two bowls.
5. Hold the rainbow with both ends slightly submerged into each bowl of water and watch your rainbow grow.

Try and design your own invention to help others. Then use junk modelling to try and create it.



Words To Learn:

- capillary action
- adhesion
- cohesion
- absorbed

You will need:

- Kitchen roll/paper towel
- Felt-tip pens
- Two small bowls of water
- Paperclip
- Thread



Creative Ideas:



Use junk materials from around your home to try to make a fossil. You could even try to draw your own.

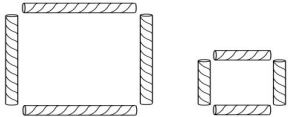
UKS2 Maths Challenge

Square it up

You need six drinking straws each the same length. Cut two of them in half.

You now have eight straws, four long and four short.

You can make 2 squares from the eight straws.



Arrange your eight straws to make 3 squares, all the same size.

LKS2 Maths Challenge

Egyptian Rope

The ancient Egyptians were said to make right-angled triangles using a rope which was knotted to make 12 equal sections.

If you have a rope knotted like this, what other triangles can you make? (You must have a knot at each corner.)

What regular shapes can you make - that is, shapes with equal sides and equal angles?



Here is a link to find out about significant people who have shaped our lives.

<https://www.bbc.co.uk/bitesize/topics/zf49q6f>

Choose two people and compare them.

Consider:

- > What did they do?
- > What changed because of them?
- > Who do you aspire to be like?