How to Grow a Rainbow 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.



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





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.



