



# Chromatography



## What to do...

Get some strips of kitchen towel or coffee filter paper. Put a dot of felt tip pen or food colouring about 1 cm (around half an inch) from the bottom of the paper.

Stand or hold the strips in water (using a glass can make this easier) and let it move up the paper. Watch what happens to the ink or food colouring.

You can make artwork using chromatography by drawing circles (or rings of different coloured dots – experiment with different patterns) around the centres of whole coffee filters, folding them into cones and putting the tips into a glass of water. When the water has moved through the whole filter, you could make the resulting patterns into flowers or butterflies.

## How it works...

Water moves up the paper by capillary action. There are very narrow spaces within the paper, and the balance of attractive forces within the water, and between water and the sides of the spaces, allow the water to travel upwards.

Dyes are made up of lots of different colours. The water moving through the dye separates these colours out because some of them are moved more easily by the water, so they travel further up the paper.

## Things to talk about...

(describe things to younger children, and discuss them with those that are old enough)

What will happen when the water touches the paper?

What will happen when the water reaches the ink or food colouring? What colours will you see?

What colours can you see? Would you expect to find those colours in the ink or food colouring?

