

Name: \_\_\_\_\_

Think like a scientist

## Separating the colours in ink

You will need:

- chromatography paper (or filter paper)
- beaker
- water
- pencil and ruler
- glass rod or wooden spill
- ink or a pen
- various other inks and/or food dyes
- pipette (if using liquid ink)

### Method

- 1 Take a strip of chromatography paper. Draw a pencil line about 1 cm from the end.
- 2 Place a spot of ink on the pencil line. The spot should be as small as possible.
- 3 Dry the spot and then add a little more ink.
- 4 Place about 2 cm depth of water in a beaker.
- 5 Hang the paper over a glass rod, pencil or wooden spill so that the end with the ink spot is just in the water. Make sure the ink spot stays above the level of the water.
- 6 Watch what happens as the water moves up the strip of paper.
- 7 Remove the strip of paper **before** the water reaches the top. You need to be careful as the wet paper can tear easily.
- 8 Allow the strip to dry and then stick it in your book. This is your chromatogram.

You can try this with all sorts of coloured liquids. Different inks and food dyes, especially from sweets or fruit syrup, are very good. You could also try this with permanent marker pens that have ink that is not soluble in water.

### Questions

- 1 Why did you use a line drawn in pencil on the paper?
- 2 Why was it important not to let the ink spot go under the water?
- 3 Why was it important to remove the strip of paper before the water level reached the end of the strip?
- 4 Describe your results.

