Year 7 Science
Chemical Sciences
Practical - Chromatography

Various "solutions" such as black ink and whiteboard marker ink are mixtures of different pigments. The following process is used to separate them.

Try the following inks.

- Permanent pen - blue, black, red.
- White board marker - blue, black, red, green.
- Food colouring - red, blue, green, pink, yellow.

INQUIRY: INVESTIGATION 5.7

Separating colours

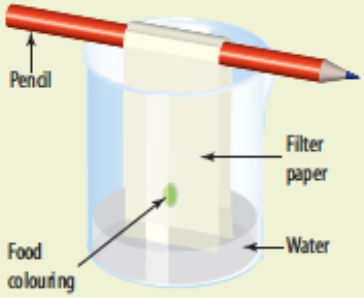
KEY INQUIRY SKILL:

- processing and analysing data and information

Equipment:

food colouring *toothpick*
filter paper *scissors*
250 mL beaker *pencil*
ruler

- Cut a piece of filter paper approximately 10 cm by 3 cm.
- Rule a pencil line 2 cm from the end of the paper.
- Use the flat end of a toothpick to place a small dot of food colouring in the centre of the pencil line on the filter paper.
- Pour tap water into the beaker to a depth of 1 cm.
- Stand the filter paper so that the end just dips into the water. Make sure that you keep the dot of food colouring out of the water.
- Fix the filter paper to a pencil to hold it in the beaker.



- Leave the filter paper to stand until the water has risen almost to the top.
- Repeat the experiment with different food colourings.

DISCUSS AND EXPLAIN

1. What colours were in the first food colouring tested?
2. How do you think the colours are actually separated using this method?
3. List the different food colourings that you tested. For each one, write down the colours that made up the food colouring.