



101

SIMPLE SCIENCE ACTIVITIES

with

ATOMS
EDUCATION



COLOURFUL CHROMATOGRAPHY

For this activity you will need:

- **Coffee filters (cut into strips) or filter paper**
- **Pencils**
- **Beakers (glasses or cups will do)**
- **Masking tape**
- **A selection of felt tip pens**

Have you ever wondered, how on detective shows, ink on notes can be matched to the pen that wrote them. Chromatography simply means colour writing and the process of chromatography is used to do this. Chromatography is a process used to separate the components in liquids.



KEY VOCABULARY

colour chromatography ink
components separate liquids
filter paper experiment

METHOD

1. Choose a felt tip pen and a strip of filter paper.
2. About 2cm from the bottom of one of the narrow edges place a dot of the chosen colour.
3. At the top of the filter paper write what colour this is with a pencil.
4. Pour a little water into the bottom of the beaker - about 1cm deep at most.
5. Use a little masking tape to attach the top of the strip to a pencil. (as in the picture above)
6. Dangle the strip in the beaker making sure only the very bottom (below the dot) is in the water.
7. Watch what happens as the filter paper soaks up the water until it passes the dot from the felt tip.

Fun ideas

- Get a grown up or friend to secretly choose a felt tip to place a dot on a strip. Use the method above to separate the component colours then experiment with other felt tips till you find a match. Did you get it right?
- Try different types of the same colours - are the patterns the same?
- Try other pens and pencils. Do they all work the same?
- Try racing different coloured dots on the same strip - do they spread at the same speed?

ACTIVITY TIME: 30 MINUTES TO 1 HOUR