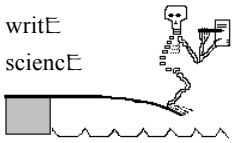
What colour is black?



Your Name ……Date……..

How is black ink made? Do you think it is pure black, or made up of other colours?

Diagram 1: what are black paint and black ink coloured with?

In science, we can answer this question with **chromatography**. *Chroma* is an old word for 'colour', and *chroma*tography means 'separating colours'.

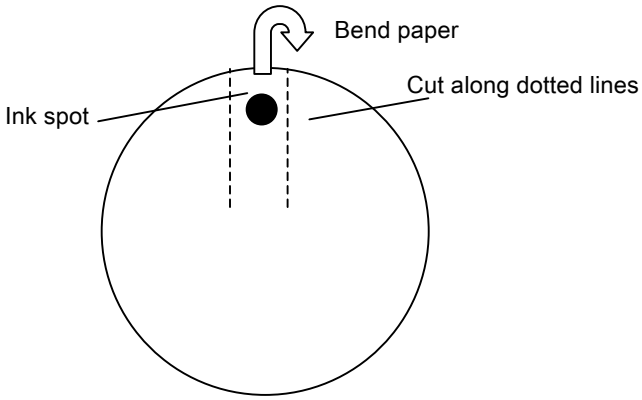
To find out what colours make up black, we will need to conduct an **investigation**. Investigations are all about carefully finding out what happens. In today's investigation, you will use chromatography to find evidence for the makeup of black ink.

Equipment

Filter paper
100ml beaker or a small glass
Black texta (check it is water soluble)

Method

1. Cut the filter paper as shown in the diagram:



2. Place one dot of black ink in the very centre. Wait 10 seconds for it to dry.

3. Continue to place another 9 dots on the same spot, waiting for each to dry.

4. Put enough water in the beaker, so that it will just cover the end of the filter paper flap. Place the flap of the filter paper in the beaker.

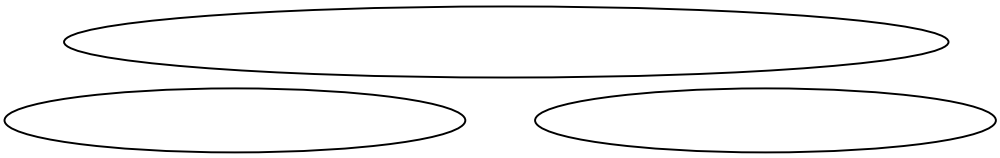
Record your observations as they happen, and infer what happened.

Part 1. Purpose of the text

Find the main words from the text, and try to explain what they mean. **Organise** them below.

a. Title (purpose)

Main word(s)



Line number _____ _____

Meaning _____ _____

_____ _____

Part 2. Synthesise answers to these questions:

a. What do you do after you cut the filter paper?

_____

b. What do you do after you place a dot of black ink on the filter paper?

_____

c. What will happen as soon as the filter paper touches the water?

_____

d. Why place ten dots of ink on the same place?

_____

Part 3. Chromatography investigation

1. **Synthesise** a prediction. Is black ink made of black only, or is it made of different colours?

I think black ink is made of_____

2. **Generate** observation data and **organise** your data into a table.

Before the water met the ink	During the investigation	After ther investigation
Word description:		
Drawing:		

3. Infer why you think this happened. My **analysis** of why this happened is_____

_____

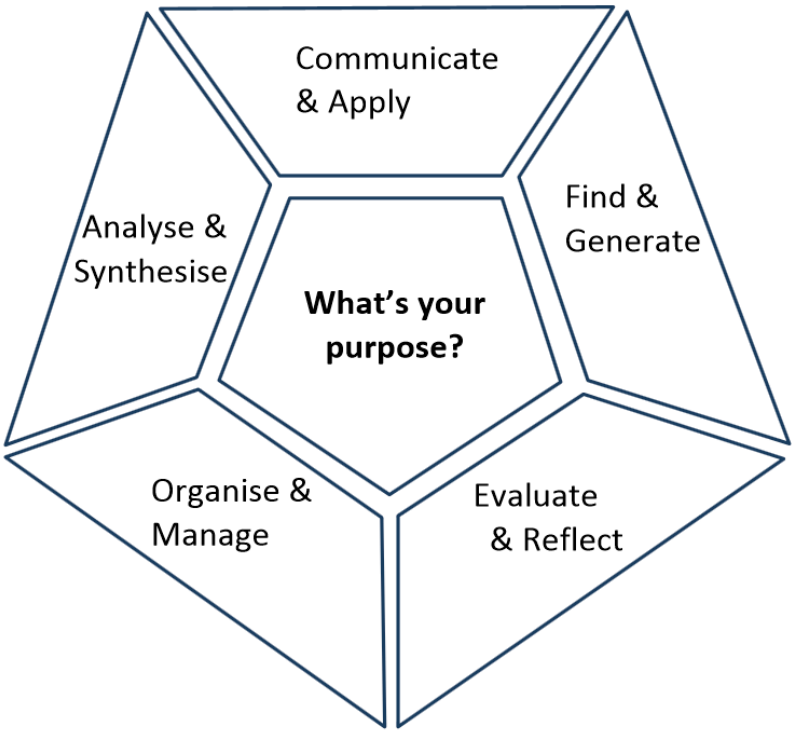
4. **Synthesise** 2 questions you have after completing this writE science activity.

_____

_____

_____

Part 4. Communicate and **apply** your understanding of the topic. Write two sentences, each containing one of the main words from the text on page 1.



Part 5. **Evaluate** and **reflect**.
Evaluate your inference.

Reflect by suggesting ways to improve this activity.

Page 4 and onwards given out at teachers' discretion. Teacher's notes:

This sheet was actually the final modified product of the two primary workshops. They should not be seen as a static resource, but dynamic, modifiable to suit each class' needs. Last year I gave students computer lab time to generate their own writE science sheets - some were fantastic, taking a story like *Three Billy Goats Gruff*, and modifying it to suit a practical activity.