

Experiments to do at home:

1. Make fireworks in a jar.

Method

1. Fill a glass jar or a non-patterned glass about $\frac{3}{4}$ full of water
2. In a separate bowl, use a fork to mix 4 tablespoons of oil and 4 drops of each colour of food colouring you choose.
3. Gently and slowly, pour the oil mixture into the jar / glass of water so that it sits on top of the water
4. Watch as the food colouring slowly sinks down, out of the oil and into the water.

2. Rainbow skittles

1. Arrange skittles around in a circle near the edge of a flat plate.
2. Carefully pour on hot water from the kettle (**Caution! Ask an adult to help with this**) onto the middle of the plate until it reaches the skittles.
3. Watch.

3. Changing the solubility of a gas in a solution

Method (this is a variation of the mentoes in coke experiment)

1. Take a small bottle of lemonade (the cheaper the better). Put this in the sink or go outside.
2. Fold a piece of paper in half making a crisp fold. Open the paper back out.
3. Put 2 tablespoons of salt onto the paper
4. Using the fold to help, pour the salt quickly into the bottle of lemonade
5. Stand back!

4 Chromatography

1. Cut the kitchen roll / filter paper into a strip about 3 cm wide and just longer than your glass / beaker.
2. Draw a line about 1 cm from the bottom in **pencil**.
3. Draw a spot with one of your marker pens (black, purple and green work well) on the pencil line.
4. Fold the top of your paper over a pencil and secure with sellotape.
5. Add enough water to the glass so that the paper just dips in but make sure the spot is not in the water.
6. Leave your experiment set up until the water is a few cm from the pencil.
7. Take it out and hang it up to dry.

Chromatography Art:

Now that you know what chromatography is why not make some artwork?

Remember that some inks are insoluble so anything you draw with them will still be there at the end – like the tree and birds in the first picture



These flowers were made using a circle of kitchen roll, putting the ink in the centre and then adding drops of water to the centre to make the colours spread out radially.

This artist has placed drops of water carefully in the positions he wanted to create this effect

