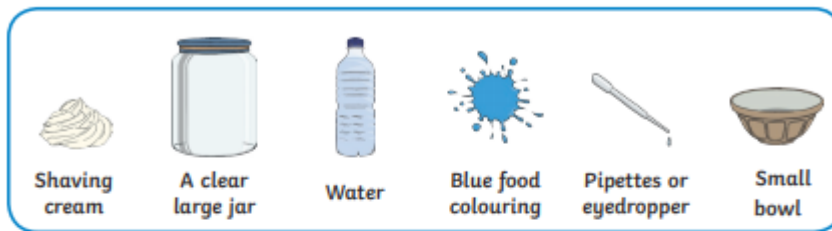


Rain Cloud in a Jar

You will need:



Method:

1. Fill the large jar with water, leaving 2 inches at the top.
2. Add the shaving cream to the top of the water until it reaches the top of the jar.
3. Next, add 1 cup of water to the small bowl and 3 drops of blue food colouring.
4. Mix the water and food colouring together.
5. Use the pipette to add drops of the water mixture to the top of the shaving cream cloud.
6. Continue adding the water mixture until you begin to notice the raindrops begin to break through the bottom of the cloud.



Fireworks in a Glass

Science Experiment



Method

1. To start with, make sure your glass is clean.
2. Pour the warm water into the glass until about $\frac{3}{4}$ full.
3. In the other glass, add a few spoonfuls of oil and 4 drops of food colouring.
4. Add some different colours to the oil.
5. Using the fork, mix together the oil and food colouring, to spread the colours throughout the oil.
6. Finally, pour the coloured oil into the glass of warm water and watch for the 'firework' display to start.

You will need:

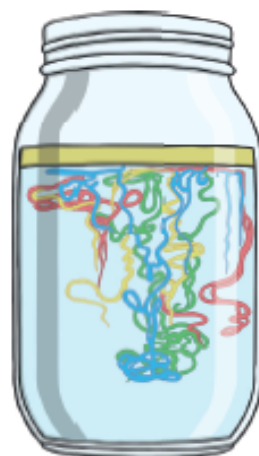
Food colouring (various colours)

Warm water

Oil

2 empty glasses

Fork



Dissolving

Which solids dissolve in water?

You Will Need

- Water (hot and cold)
- Transparent Containers
- Substances to try and dissolve; sand, sugar, salt, coffee etc



Method

- 1 Add a teaspoon of whichever solid you are testing to a glass of cold water and a glass of hot water, stir and observe the difference.
- 2 Look to see if the solid dissolves in the hot water and cold water and if one is better than the other.
- 3 Can you design a chart to record your observation?

The Science Bit

Things like salt, sugar and coffee dissolve in water. They are soluble. They usually dissolve faster and better in hot water. Pepper and sand are insoluble, they will not dissolve even in hot water.

For Older Children

Everything is made of particles which are always moving. When a soluble solid (solute) is mixed with the right liquid (solvent), it forms a solution. This process is called dissolving.

Two things that affect the speed at which the solid dissolves are temperature and the size of the grains of the solid. Caster sugar which is made of fine particles will dissolve quickly, but bigger sugar particles will take longer.

Solids dissolve faster in hot water as in hot water the water molecules are moving faster, so bump into the solid more often which increases the rate of reaction.