

Activity 5B The Disappearing Act



Skills: Sort materials by testing, recognise how to use identifying and classifying as a scientific enquiry

Materials:

Water	Four teaspoons	10 g of sand
Four beakers	10 g of salt	10 g of sugar
10 g of flour		

Method

- 1 Pour 100 ml of water into each beaker.
- 2 Put 10 g of flour into one beaker of water. Use the teaspoon to stir 20 times.
- 3 Repeat step 2 using salt, sand and sugar.
- 4 Observe if any solid can be seen after each mixture is stirred 20 times.
- 5 From your observations, how would you classify the four different solids?

Classify the four solids into two different groups in the table below.

Soluble _____	Insoluble _____
Salt Sugar	Sand Flour

Identifying and classifying is one of the five main types of scientific enquiry.



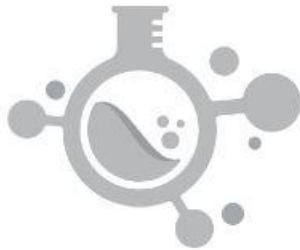
- 6 How can we separate the solutes from the solvents?

By Evaporation

Word Whizz

Form five correct sentences by choosing a word or a phrase from each column.

Mixtures	consist of	two or more	different substances that are not joined together.
A solution	can be	separated	into their parts.
		formed	by filtration if the solute is insoluble in the solvent.
			when salt is mixed with water.
			by evaporation if the solute is mixed in the solvent.

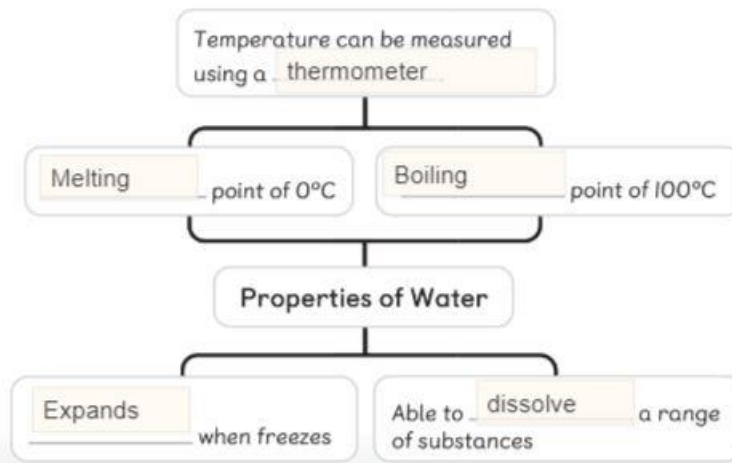


- 1 A Solution can be formed when salt is mixed with water.
- 2 Mixtures consist of two or more different substances that are not joined together.
- 3 Mixtures can be separated by filtration if the solute is insoluble in the solvent.
- 4 A solution can be separated by evaporation if the solute is mixed in the solvent.
- 5 Mixtures can be separated into their parts.

Let's Map It!

Fill in the blanks. Use the following words.

boiling dissolve evaporation expands
liquids melting solids solute
solvent thermometer



Some solids, like salt and sugar, can dissolve in water.

when a solute is dissolved in a solvent

Some liquids have the ability to dissolve solids.

form Solutions can be separated by evaporation

LEARNING REVIEW

- 1 Amar was playing with a bucket that had a mixture of seawater and sand.

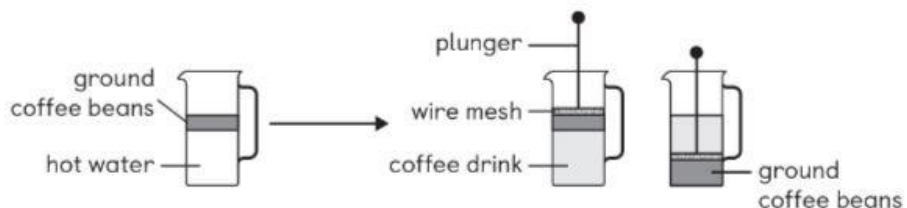


Read the following statements.

Tick either **True** or **False** for each statement.

	True	False
Water is a solvent for salt.	✓	
Water is a solvent for sand.		✓

- 2 Eyad is making coffee. He mixes coffee beans in hot water.



- a He pushes the plunger down. This separates the coffee drink from the ground coffee beans. What is the name of this separation method?

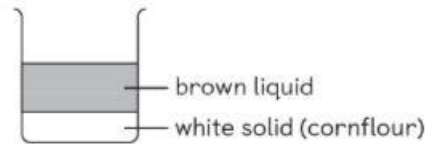
Filtration

b How could Eyad see that some coffee had dissolved in the water?

The color of the water became dark brown

3 Gravy powder contains a brown substance that makes the gravy brown. It also contains cornflour to make the gravy thick.

Some gravy powder is mixed with cold water in a beaker. An hour later, the contents of the beaker look like this:



Use the words below to complete the following sentences.

dissolved solute solution solvent

a The brown substance dissolves in water to form a brown solution.

b The cornflour settles at the bottom of the beaker because it cannot be dissolve in water.

c Water is the solvent in the mixture.