



KNOWLEDGE ORGANISER

SCIENCE: MARVELLOUS MIXTURES

YEAR FIVE

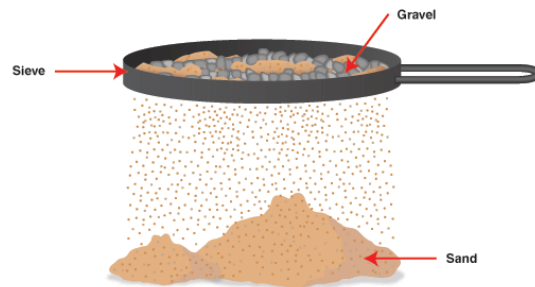
KEY KNOWLEDGE:

QUESTION 1: How can you separate materials?

ANSWER

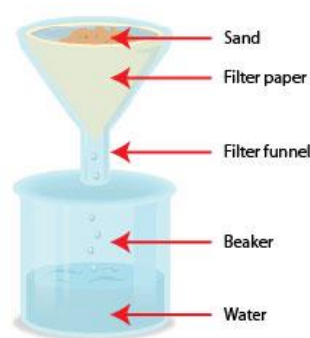
Sieving

A mixture made of solid particles of different sizes, for example sand and gravel, can be separated by sieving.



Filtering

A mixture of water and an insoluble substance like sand can be separated by filtering. The mixture of sand and water is poured into the filter funnel, which is lined with filter paper. The water can pass through the paper to collect in the beaker. The sand particles cannot pass through the filter paper and collect in the filter funnel.



Evaporating

By dissolving salt in water we make a solution. The salt disappears into the water. We can separate the salt from the water by boiling the solution. The water will evaporate until it is all gone. The salt will be left behind. If we collect the water vapour that evaporates we can cool it to form water again.





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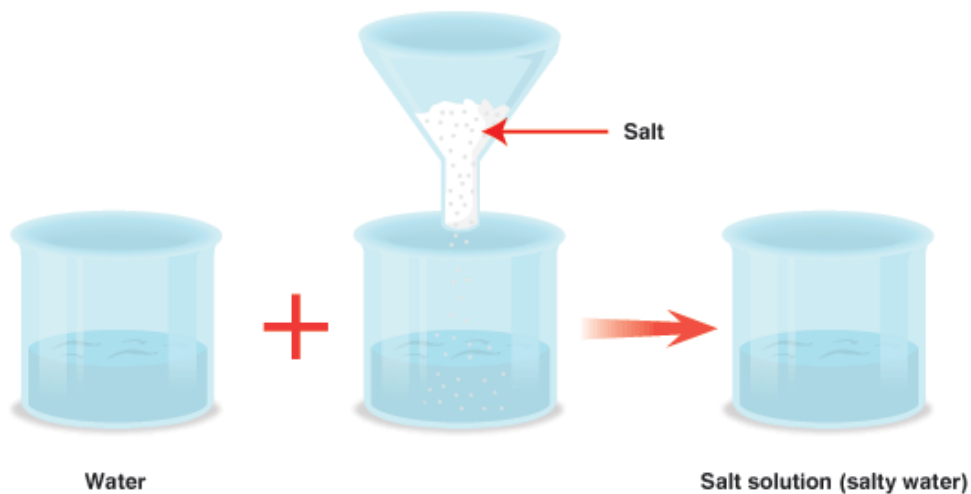
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QUESTION 2: What is dissolving?

ANSWER

Dissolving

Some substances dissolve when you mix them with **water**. When a substance dissolves, it looks like it disappears. But in fact it has just mixed with the water to make a transparent (see-through) liquid called a **solution**. When you mix sugar with water, the sugar dissolves to make a transparent solution. Salt dissolves in water too. Heat can help some substances dissolve faster in water. Salt, for example, will dissolve quicker in hot water than in cold water.



- Substances that dissolve in water are called **soluble** substances.
- Substances that do not dissolve in water are called **insoluble** substances.

When you mix sand or flour with water, they do **not** dissolve.

