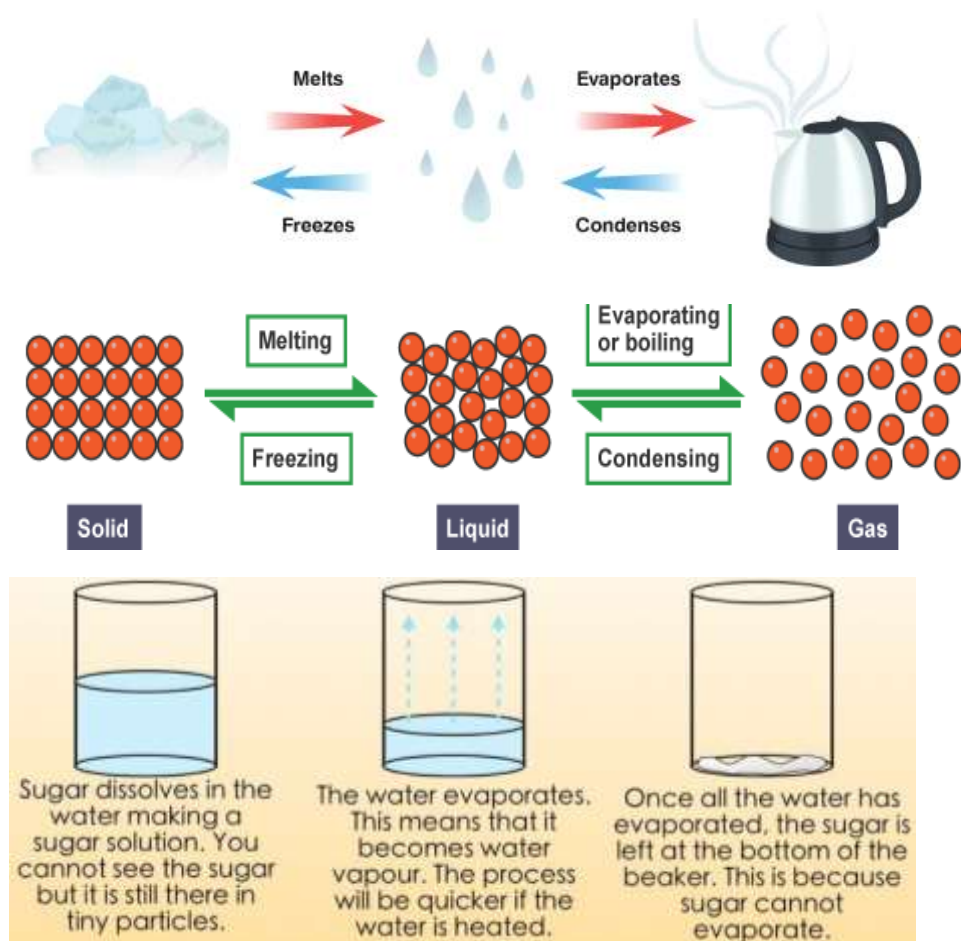


Material Changes



Content

- compare and group together everyday materials on the basis of their properties, including their solubility and response to magnets
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- demonstrate that dissolving, mixing and changes of state are reversible changes
- explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

Key Vocabulary

Conductor - A material or device which allows heat or electricity to carry through

Dissolve - When something solid mixes with a liquid and becomes part of the liquid

Evaporation - The process of turning from liquid to vapour

Flexible - Capable of bending easily without breaking

Gas - An air-like fluid substance which expands freely to fill any space available

Insulator - A substance which does not readily allow the passage of heat or sound

Irreversible - Cannot be reversed back to its original state

Liquid - A substance that flows freely but can be measured by volume e.g. water or oil

Magnetic - Capable of being magnetised or attracted by a magnet

Material - The matter from which a thing is or can be made from

Opaque - Not able to be seen through, not transparent

Reversible - Able to be reversed back to its original state

Solid - Firm and stable in shape, not a liquid or fluid

Soluble - Able to be dissolved, especially in water

Thermal - Relating to heat

Transparent - Allows light to pass through so that objects behind can be seen

Working scientifically

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments