To investigate materials

Quick Summary



Making Links

D&T: Design a thermos mug which will prevent ice from melting

D&T: Design a meal which will demonstrate reversible changes



Bernard Palissy
(1510-1590)

Bernard Palissy was a French potter and Scientist. He is often credited as the man who 'discovered' the modern theory of the water cycle. He asserted that rainfall alone was sufficient for the maintenance of rivers.

Melting and freezing



Melting is a change of state from solid to liquid. The melting point of water is 0°C.

Freezing is a change of state from liquid to solid. The freezing point of water is 0°C.

Boiling is a change of state from liquid to gas. Water boils when it is heated to 100°C.



Evaporation and condensation



Evaporating puddles
Evaporation is the change from a liquid to a gas at the surface of the liquid.



Condensation in the bathroom
Condensation is the change from a gas to a liquid, caused by cooling.

Scientific Vocabulary

Change of state: when a material changes from one state to another
Melting: a solid changing to a liquid
Freezing: when a liquid becomes cold enough to turn solid, it freezes
Melting point: the temperature at which a solid becomes a liquid
Boiling point: the temperature at which a liquid turns into a gas
Evaporation: when liquid changes into a gas
Condensation: the process when a gas changes into a liquid, caused by cooling
Water cycle: the never-ending process of water moving from the oceans, up into the atmosphere and back to the Earth and oceans
Temperature: the measure of how hot or cold something is
Soluble: a solid which can be dissolved into liquid to form a solution
Dissolve: when a solid become incorporated within a liquid and forms a solution
Solution: a liquid mixture with a minor solid component uniformly displaced around the liquid
Filtering: pass through a device to remove unwanted material
Reversible: a change of state or mixture where the components can be reverted back to their original state
Irreversible: a change of state or mixture where the components cannot be reverted back to their original states due to a chemical reaction
Conductivity: allowing electricity to pass through

Scientific Skills

Enquiry Types

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Solids, liquids and gases

A **solid** keeps its shape and has a fixed volume.

ice 

sugar 

A **liquid** has a fixed volume but changes in shape to fit the container. It can be poured.

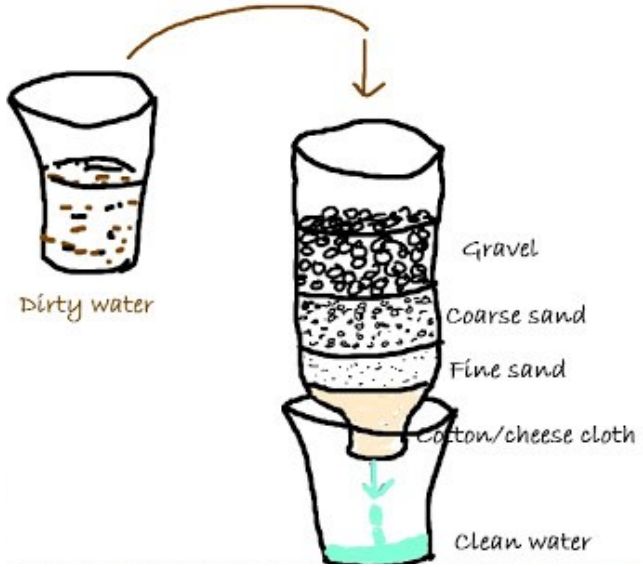
water 

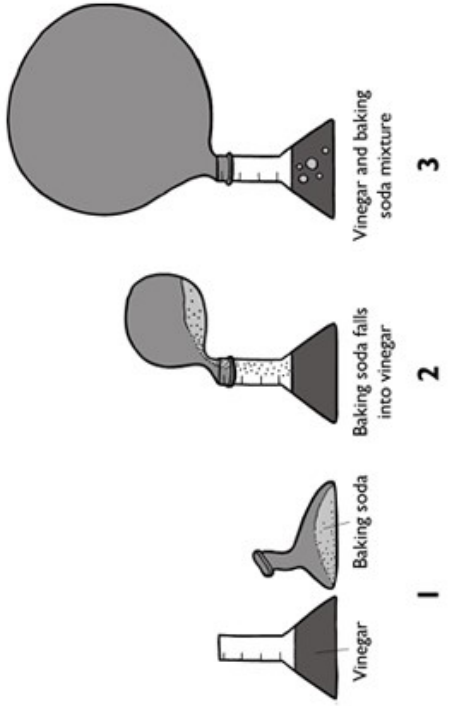
honey 

A **gas** fills all the available space; it has no fixed shape or volume.

water vapour 

bubbles in cola 





Scientific Skills

Enquiry Types