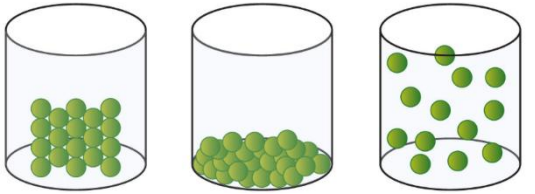
Burwell Village College Primary

Properties and Changes of Materials



solid particles	liquid particles	gas particles

Vocabulary

substance	physical things you can see, touch, or measure, such as iron, water and the air you breathe is also a substance
mixture	different substances jumbled up together (each substance can usually be seen)
soluble	a substance that can be dissolved in liquid
insoluble	impossible to dissolve, especially in water

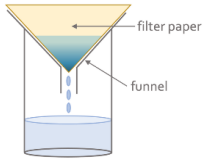
A **reversible change** is a change that can be undone so the material goes back to its original form. For example, by melting or freezing.

Irreversible changes often result in a new product being made from the old materials.

The change cannot be reverse. For example, burning wood produces ash.

Methods for Separating

Filtering



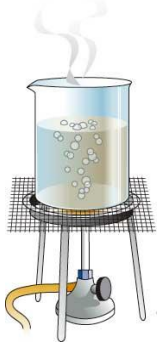
Use filter paper to separate solid, insoluble particles that do not dissolve in a liquid.

Sieving

Use a sieve to separate larger solid particles from smaller particles or liquids.

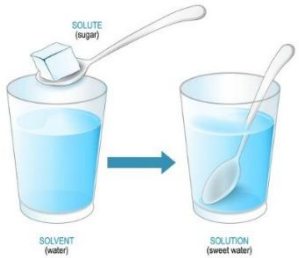
Evaporation

Use evaporation to heat a liquid, changing it into a gas. It leaves behind any dissolved solids.



Dissolving

Dissolving is when a substance breaks up into tiny particles. It mixes evenly within a liquid so that it seems to disappear. This forms a **solution**. For example, when sugar dissolves in water, it forms a solution.



Properties of Everyday Materials

Different materials are used for particular jobs based on their properties. For example, glass is used for windows as it is hard and transparent. Oven gloves are made as a thermal insulator to stop hands from burning.

flexible

a flexible spring

transparent

This glass is transparent.

conductor

Some metals are conductors of electricity.

translucent

The screen is translucent.

magnetic

Iron nails are magnetic.

opaque

She is hidden by the opaque screen.