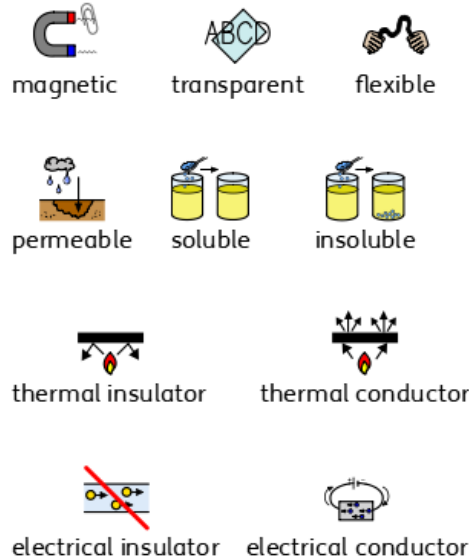


# Darlinghurst Academy Year 5 Autumn 1: Mysterious Materials – What is it made of?

## Vocabulary

condensation	small drops of water which form when water vapour or steam touches a cold surface, such as a window
dissolves	when a substance is mixed with a liquid and the substance disappears
evaporation	to turn from liquid into gas; pass away in the form of vapour.
gas	a form of matter that is neither liquid nor solid. A gas rapidly spreads out when it is warmed and contracts when it is cooled.
insoluble	impossible to dissolve, esp. in a given liquid.
irreversible	impossible to reverse, turn back, or change.
liquid	in a form that flows easily and is neither a solid nor a gas.
magnetic	having to do with magnets and the way they work
melting	to change from a solid to a liquid state through heat or pressure
properties	the ways in which an object behaves
reversible	able to turn or change back
solid	having a firm shape or form that can be measured in length, width, and height; not like a liquid or a gas
soluble	able to be dissolved.
solution	a mixture that contains two or more substances combined evenly

## Grouping materials



## What is dissolving?

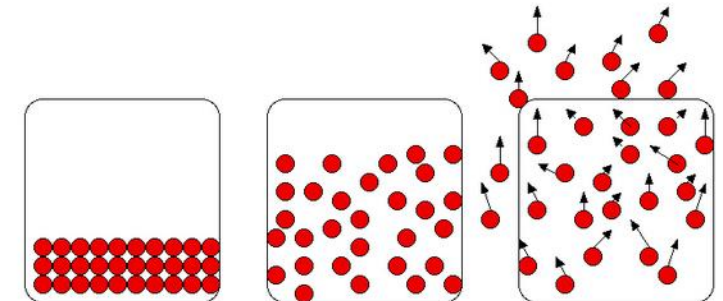
- When the particles of a solid mix with the particles of a liquid, this is called dissolving.
- The result is a solution.
- Materials that dissolve are soluble.
- Materials that do not dissolve are insoluble.



## Can materials be separated after they have been mixed?

- Some materials can be separated after they have been mixed based on their properties - this is called a reversible change.
- Some methods of separation include the use of a magnet, a filter (for insoluble materials), a sieve (based on the size of the solids) and evaporation.
- When a mixture cannot be separated back into the original components, this is called an irreversible change. Examples of this include when materials burn or mixing bicarbonate of soda with vinegar.

## States of Matter



**Solid:** The state of matter with a definite shape and volume. The molecules of a solid are very close.

**Liquid:** The state of matter with a definite volume but not a definite shape. The molecules of a liquid are free flowing and farther apart than those of a solid.

**Gas:** The state of matter that does not have a definite shape or volume. It is more free flowing than a liquid and its molecules are very, very far apart.