

## Glossary:

- soluble – able to be dissolved, especially in water
- solution – a mixture of two or more substance that stays evenly mixed. They do not change into new substances
- conductivity - allow things to pass through. (Electrical and thermal)
- filter – something that separates solids from liquids
- evaporation – a process where liquids change to a gas or vapour
- melting – when one substance changes from a solid to a liquid
- dissolving – when a material is mixed with a liquid to form a solution
- irreversible – a change that cannot be changed back and a new material is formed
- dependent variable - the variable being tested or measured during a scientific experiment
- independent variable - the variable that is altered during a scientific experiment
- control variable - a variable that is kept the same during a scientific experiment



Stephanie Kwolek  
1923-2014  
Inventor of Kevlar

Reversible and irreversible changes



Baking a potato



Melting butter



Cooking meat



Melting chocolate



Boiling water



Melting ice-cream

## Transparent

All light passes through



## Translucent

Some light passes through



## Opaque

No light passes through



States of Matter	Properties				
	Can be weighed	Occupies Space	Fixed Shape	Fixed volume	Can be compressed
<b>Solids</b>	✓	✓	✓	✓	✗
<b>Liquids</b>	✓	✓	✗	✓	✗
<b>Gases</b>	✓	✓	✗	✗	✓

## Sticky Knowledge:

- To know that some materials dissolve in liquid to form a solution.
- To know how to recover a substance from a solution.
- To know and explain reversible and irreversible changes.

## Working Scientifically:

- Know how to carry out a fair test
- Know what a hypothesis is
- Know and identify suitable variables to test hypothesis
- Know how to control variables when necessary
- Know why repeated measurements are sometimes necessary
- Know how to present and report findings

