



Year: 5
Term: Spring 2

Mysterious Materials

Background Information

Throughout this topic, we will be exploring all kinds of weird and wonderful materials and their properties through lots of science experiments. Namely: separating states of matter; reversible and irreversible reactions and solubility. We will use this topic to inspire our writing looking at people famous for creating 'Mysterious Materials' and writing non-fiction reports on the most interesting and bizarre materials we can find.

Key Vocabulary

Word	Meaning
Solubility	The ability to be dissolved, especially in water.
Transparent	When a material or substance is clear and you can see through it
Conductivity	The rate at which heat or electricity passes through a material.
Magnetic	The force of magnets , called magnetism , is a basic force of nature, like electricity and gravity.
Filter	To filter something is a process by which impurities or particles are removed from a fluid, either a liquid or a gas.
Evaporation	Evaporation is a process where liquids change to a gas or vapour.
Dissolving	When a solid becomes part of a liquid. Sugar dissolves in water.

Killer Facts!

- ◆ Marie Curie was the first person to win two Nobel prizes, which she managed without a fancy lab!
- ◆ All solvents have a limit to how much of a solute they can break down, but if you heat it up, it can take more solute!
- ◆ We have reversible reactions (can be turned back to its original product) and irreversible reactions (where the product is forever changed).
 - ◆ Products can be changed by: shape, heating, cooling, mixing or chemically.
- ◆ Chemical changes: one awesome chemical change is mixing vinegar and sodium bicarbonate. This combination creates a rapid chemical reaction. It fizzes and makes bubbles as a gas, carbon dioxide, is produced. This chemical change is irreversible because the mixture cannot be turned back into vinegar and sodium bicarbonate.

