

Y4: 'Potions' project knowledge organiser

What are Potions?

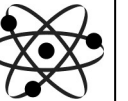
Potions are **liquids** said to have healing or magical properties. Healing potions were often made using herbs before discoveries of modern medicine. Potions are commonly used in fantasy stories and films.



Big question: Do all liquids have the same properties?

Key Vocabulary:

Matter: A physical substance that takes up space.



Solid: A state of **matter** that has a fixed shape and volume.



Liquid: A state of **matter** with a definite volume, but no fixed shape.



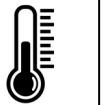
State of gas: A state of **matter** that fits to the shape of a container in which it is held.



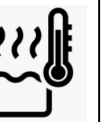
Degrees Celsius: A scale used to measure **temperature**.



Temperature: The amount of heat present in a substance or object.



Boiling Point: The **temperature** at which a **liquid** boils and turns to **vapour**.



Freezing Point: The **temperature** at which a **liquid** becomes a **solid**.



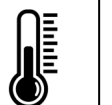
Melting Point: The **temperature** at which a **solid** becomes a **liquid**.



Solidify: A change of **matter** that results in creating a **solid**.



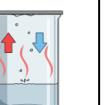
Thermometer: A tool for measuring and indicating **temperature**.



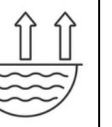
Vapour: A **gas** (or small drops of **liquid**) that result from heating or **boiling** a liquid.



Condense: The process of a **gas** cooling to become a **liquid**.



Evaporate: The process of a **liquid** becoming a **gas** by **heating**.



Solids, liquids, and gases

All matter is made up of particles. The arrangement of the particles determines whether the matter is a solid, liquid or gas and its properties.

Particle arrangement	Properties	Examples
Solid 	Particles are tightly packed together, which means solids hold their shape and can't be squashed.	wood, brick, rock, sand, ice, butter
Liquid 	Particles are slightly further apart so liquids can flow from one container to another. Liquids cannot change their volume.	water, milk, oil, honey, lemonade, blood
Gas 	Particles are far apart so gases can spread out to fill all the space available. A gas can be squashed to change its volume.	air, oxygen, carbon dioxide, helium, nitrogen, water vapour

Changes of state

Matter can be changed between states by heating or cooling.

