



Key People/Scientists



**Joseph Priestly
(1733-1804)**

Discovered Oxygen, through his research he identified photosynthesis (the process of feeding plants).



**Lord Kelvin
(1824-1907)**

Developed a temperature scale called the Kelvin scale. His research into heat and energy allowed him to determine the temperature of absolute zero.

Key Questions

What is a solid?

A solid is made up of tightly packed vibrating particles to form a regular pattern.

What is a liquid?

In a liquid the vibrating particles still touch, but they move around, sliding over each other. This is why you can pour, but not compress, a liquid

What happens to a material when it is heated or cooled?

A material can change its state by heating it up or cooling it down. For example, water is a liquid at room temperature. If we cool it down, it changes into a solid - ice. If we heat it up, it changes into a gas - steam.

Why is the importance of the water cycle?

The water cycle is essential to life on our planet: without it there would be no plants or animals. ... The water cycle is powered by the Sun: heat makes water evaporate, before it cools and condenses and falls back to the ground.

Misconceptions/Key facts

Misconception: Sand and rice take the shape of containers; therefore, they are not solids.

Fact: Each individual grain of sand and rice have definite shape; therefore, they are solids.

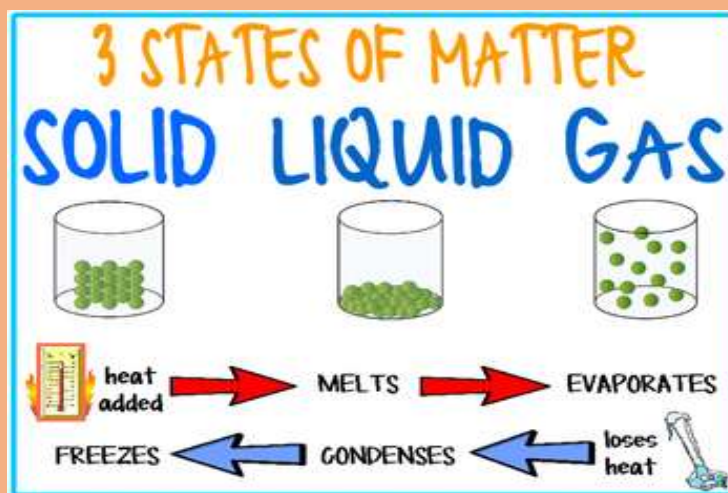
Misconception: Solids are hard, strong, and non-malleable.

Fact: Different solids have different degree of hardness, strength, and malleability.

Misconception: Mass is associated with the term 'massive' and thus related to the size or volume of an object.

Fact: Mass is the amount of matter in an object.

Diagrams/Visual Aids



Key Vocabulary

Celsius	Celsius is a measurement of temperature
condenses	Condensation is the process by which water vapor (water in its gas form) turns into liquid.
evaporates	The change in state when a liquid e.g. water changes to a gas e.g. water vapour.
freeze	Cooling freezes a liquid into a solid.
matter	Matter is anything, such as a solid, liquid or gas, that has weight (mass) and occupies space
melts	Heat melts a solid and turns it into a liquid.
particles	Particles are tiny bits of matter that make up everything in the universe.
water vapour	Water vapour is water that is in the form of a vapour, or gas.