

# SCIENCE - States of Matter

## Class 3 - Spring Term 1

### Key Vocabulary

states of matter	Materials can exist in any of three states: <b>solids</b> , <b>liquids</b> or <b>gases</b> . Some materials can change from one state to another and back again.
solid	<b>Solids</b> are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them.
liquid	<b>Liquids</b> take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
gas	<b>Gases</b> can spread out to completely fill the container or room they are in. They do not have any fixed shape but they do have a mass.
particle	A <b>particle</b> is a small piece of matter that cannot be seen with the naked eye.
melt	When a material <b>melts</b> , it changes from a <b>solid</b> into a <b>liquid</b> .
freeze	When a material <b>freezes</b> , it changes from a <b>liquid</b> into a <b>solid</b> .
condense	When a material <b>condenses</b> , it changes from a <b>gas</b> into a <b>liquid</b> .

### Melting Point

This is the **temperature** at which a **solid** turns into a **liquid**.



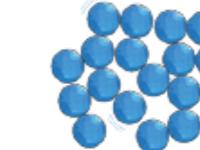
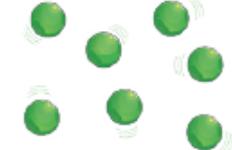
### Key Vocabulary

evaporate	When a material <b>evaporates</b> , it changes from a <b>liquid</b> into a <b>gas</b> . This is a slower process than boiling. It only occurs on the top of the <b>liquid</b> and does not produce bubbles.
temperature	<b>Temperature</b> is a measurement of how hot or cold something or somewhere is.
thermometer	A <b>thermometer</b> is a piece of scientific equipment used for measuring <b>temperature</b> . It measures in °C or °F.
water vapour	<b>Water vapour</b> is water in its gaseous state.
precipitation	<b>Precipitation</b> is water that falls back to land from the atmosphere as rain, sleet, snow or hail.

### States of Matter

'Matter' is the scientific word used to describe anything that takes up space. Matter exists in any of three different states.



Solids	Liquids	Gases
		
The <b>particles</b> are close together in clear formations. The <b>particles</b> vibrate on the spot.	The <b>particles</b> are quite close together but move around each other much more easily.	The <b>particles</b> move quickly in all directions, filling the space. There is much more space between the <b>particles</b> .

### The Water Cycle

The water cycle is the movement of water within the Earth's atmosphere and the way that it is stored in its various **states of matter**.

1. **evaporation** – When the surface of the water is heated, the water will begin to change from a **liquid** to a **gas** through **evaporation**.
2. **condensation** – As the **water vapour** rises, the conditions become much cooler. The **water vapour** begins to change back into a **liquid**, forming clouds.
3. **precipitation** – Once the **water vapour** has condensed into **liquid** water, it will fall back to the ground through **precipitation**.
4. **accumulation** – When the water reaches the ground through **precipitation**, it collects in rivers and streams (run-off) and underground (groundwater) and is transported back to larger bodies of water such as lakes, seas or oceans.

