

**Year Group: 4**  
Summer

**Knowledge Organiser:** Science

**Theme:** States of matter



### Key learning:

Matter makes up our planet and the whole universe

On Earth, all matter exists in one of three main states: solid, liquid or gas

Depending on its temperature, matter can change from one state to another

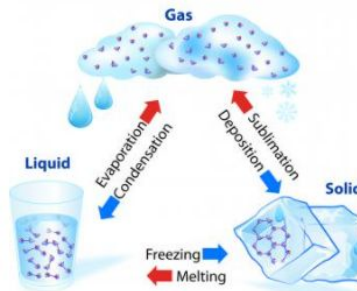
### What have I learnt already:

-Different materials have different properties and are used for different purposes

-The shape of solid objects can be changed by squashing, twisting or stretching it

### Key knowledge that will be learnt:

When water and other liquids reach a certain temperature, they change state into a solid or a gas. The temperatures that these changes happen at are called the boiling, melting and freezing points



There are three states of matter.

Solid	Liquid	Gas
Particles in a <b>solid</b> are close together and cannot move. They can only vibrate.	Particles in a <b>liquid</b> are close together but can move around each other easily.	Particles in a <b>gas</b> are spread out and can move around very quickly in all directions.



1. Water from lakes, puddles, rivers and seas is **evaporated** by the sun's heat, turning it into **water vapour**.
2. This **water vapour** rises, then cools down to form water droplets in clouds (**condensation**).
3. When the droplets get too heavy, they fall back to the earth as rain, sleet, hail or snow (**precipitation**).

### Key Vocabulary:

solid	can hold its shape, e.g. ice
liquid	forms a pool; it flows or runs, e.g. water
gas	can flow, expand and be squeezed, e.g. steam
melting	the process of changing a solid into a liquid
freezing	the process of changing a liquid into a solid
evaporation	the process of changing a liquid into a gas
condensation	the process of changing a gas into a liquid