



Science Focus

States of Matter

Year 4

Spring Term

All matter falls into one of four categories.

We are only concentrating on three as *Plasma* is not part of our curriculum

- Solids stay in one place and can be held.
- Most solids keep their shape. They do not flow like liquids. (Some solids like sand or salt can be poured).
- Solids always take up the same amount of space. They do not spread out like gases.

## Solids

## Liquids

- Liquids can flow or be poured easily. They are not easy to hold.
- Liquids change their shape depending on the container they are in.

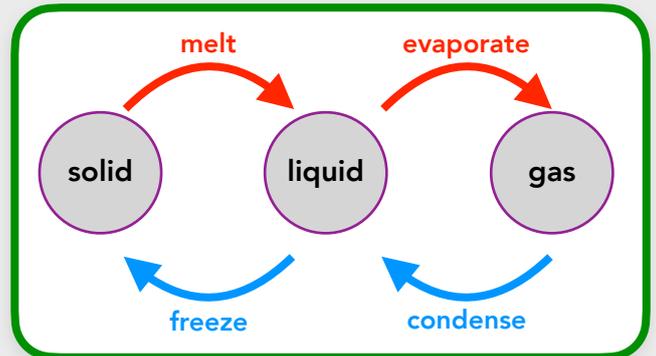
- Gases are often invisible.
- Gases do not keep their shape. They spread out and change their shape and volume to fill up whatever container they are in.

## Gases

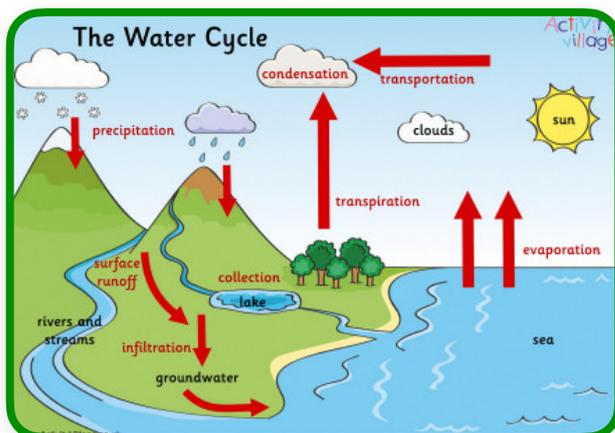
### Key Vocabulary

Spelling	Meaning
<b>boil</b>	Reach, or cause to reach, the temperature a liquid starts to bubble and turn into a vapour.
<b>celsius</b>	The common scale in the UK for measuring temperature.
<b>container</b>	An object that can hold a substance.
<b>matter</b>	A substance that takes up space.
<b>temperature</b>	The measure of warmth or coldness of an object.
<b>thermometer</b>	An instrument for measuring temperature.

When a material changes from one material type to another, we say 'it has **changed state.**'



Process	Explanation	Example
<b>melt</b>	When a solid <b>melts</b> it changes to a liquid.	When ice cube melts in a drink.
<b>evaporate</b>	A liquid <b>evaporates</b> into a gas when it is heated.	When water boils in a kettle we can see steam.
<b>condense</b>	When a gas is cooled it <b>condenses</b> into a liquid.	When steam from the shower cools on the mirror it turns to water.
<b>freeze</b>	When a liquid <b>freezes</b> it turns into a solid.	When the water in a pond freezes, it turns to ice.



The water cycle depends on some of the change of state processes.