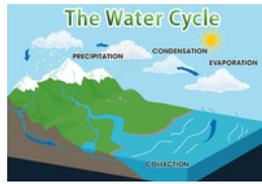




Water in the **WATER CYCLE** can exist as a solid, liquid, or gas.



Condensation



Evaporation



The WATER CYCLE

describes the movement of water throughout the Earth's surface, atmosphere, and underground. Water can **EVAPORATE** from water to water vapour, or **CONDENSATE** from water vapour back to water again.

MATTER

is everything that we come across in our lives, like the air we breathe, the clothes we wear, cool drinks – literally everything! We can describe things as solid, liquids or gases.

Did you know that **you** are made of matter too?

Year 4 States of Matter



Autumn 2

Examples of Matter

Matter is anything that has mass and takes up space.



If a solid is **HEATED** to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and around each other.

Glossary

Boiling point - the temperature when water begins to boil (on Earth, this is 100 degrees celsius)

Condensation - the process when water vapour in the air changes from a gas back into a liquid (water)

Evaporation - the process of a liquid becoming a gas

Gas - a substance that has no fixed shape, like oxygen

Liquid - a substance that has no fixed shape but can take the shape of the container it is in e.g. water

Molecule - a very small particle

Particle - a very small piece of matter

Precipitation - any rain, snow, sleet or hail that falls to earth

Solid - a substance that stays the same shape whether it is in a container or not



We measure temperature in **degrees Celsius**



Thermometers can be used to measure the temperature of liquids.

SOLID



LIQUID

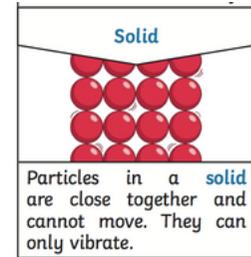


Gas



SOLIDS

can be different colours and textures, and they always hold their shape. For example, a brick. Solids can be changed to a liquid or a gas.



GASES

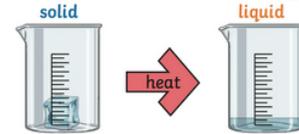
are air-like substances that can move around freely or flow to fit a container and they don't have their own shape.

You can put your hand through gases and you won't feel them.

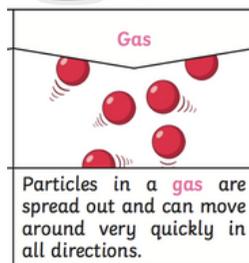
LIQUIDS

do not have their own shape but can take the shape of the container that they are in and they can **flow** at a given temperature. Examples of liquids are tea, water and blood.

Liquids can be different **colours** and **thickness**; for example, custard is a thicker liquid than tea and doesn't flow as quickly as tea.



When **FREEZING** occurs, the particles in the liquid begin to slow down as they get colder and colder. They can then only move gently on the spot, giving them a solid structure.



solid	liquid	gas
● rigid	● not rigid	● not rigid
● fixed shape	● no fixed shape	● no fixed shape
● fixed volume	● fixed volume	● no fixed volume
cannot be squashed	cannot be squashed	can be squashed

