States of Matter

Key Vocabulary:

State of matter- one of the forms in which matter exist- solid, liquid and gas.

Solid- firm and stable in shape.

Liquid- a substance that flows freely.

Gas- substance that has no fixed shape or volume.

Particle- a small amount of something.

Evaporation- the process of turning liquid into vapour.

Condensation- the process of turning vapour into a liquid.

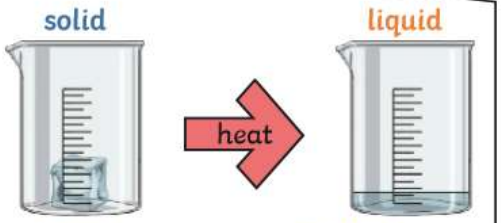
Precipitation- rain, snow, sleet or hail that falls.

Thermometer- an instrument that measures temperature.

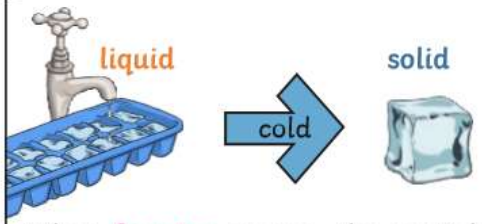
Water Vapour- water in gas form after heating.

Water cycle- the continuous movement of water on Earth.

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 or freezing point.



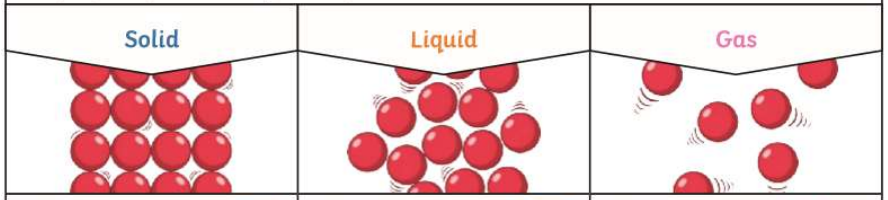
If a solid is heated to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and around each other.



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.

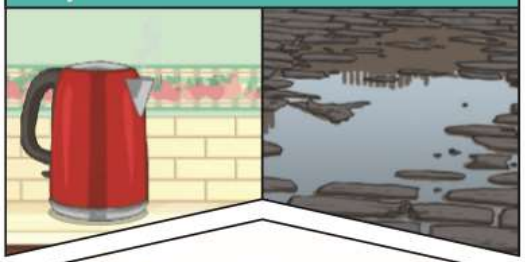
Key Knowledge

There are three states of matter.



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

Evaporation



Evaporation occurs when water turns into water vapour. This happens very quickly when the water is hot, like in a kettle, but it can also happen slowly, like a puddle evaporating in the warm air.

Condensation

Condensation is when water vapour is cooled down and turns into water. You can see this when droplets of water form on a window. The water vapour in the air cools when it touches the cold surface.