

Knowledge organiser- States of matter

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.

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.

solid

heat →

liquid

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.

liquid

cold →

solid

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 WORDS		
matter	state	condensation
substance	melting	freezing
material	boiling	solidify
chemical	atom	sublimation
particles	diffusion	vapour
solids	mixing	energy
liquids	three	mixtures
gases	evaporation	dissolved
changes	steam	temperatures

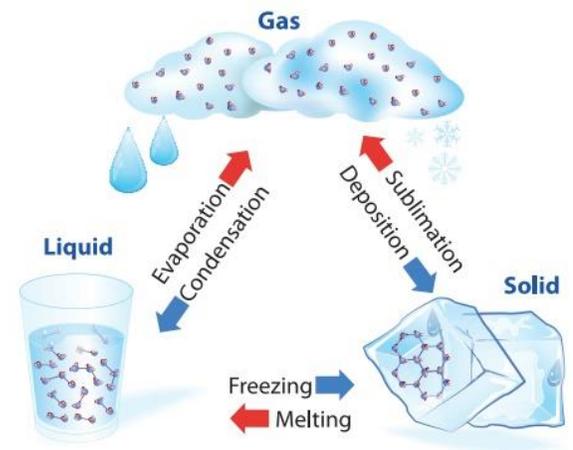
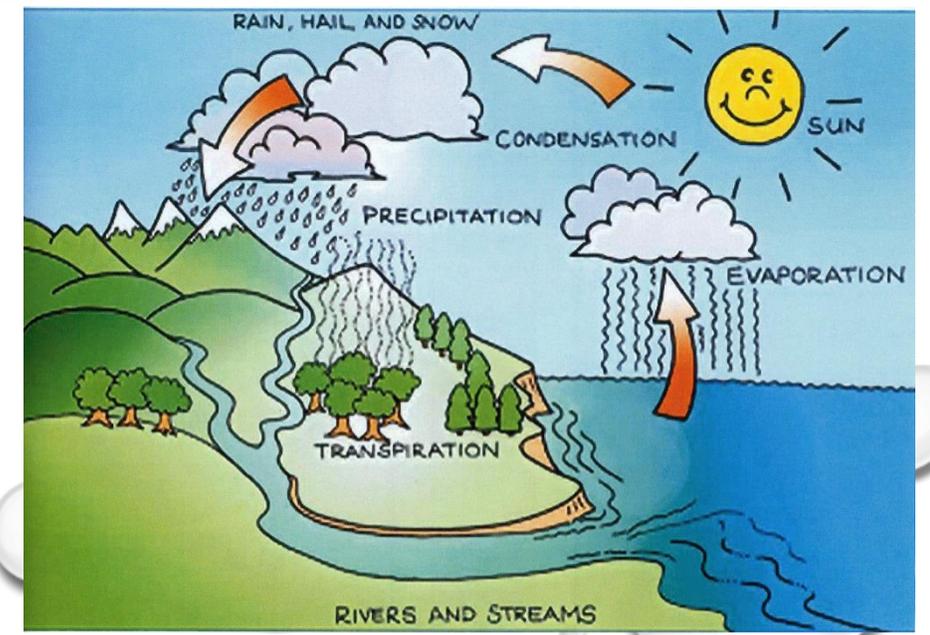


Figure 1.9 Change of state of matter





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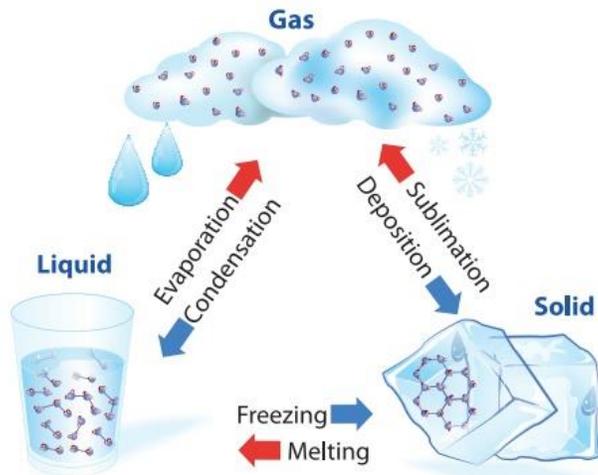


Figure 1.9 Change of state of matter

KEY WORDS			
FREEZE	GASES	THREE	
BOIL	CHANGES	STATE	SUBSTANCE
CONDENSE	STATE	LIQUIDS	MATERIAL
EVAPORATE	ATOM	SOLIDS	
MATTER	THREE	PARTICLES	

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