

## Science— States of Matter Y4

### Key Vocabulary

<b>solid</b>	Something that is hard and cannot be poured.
<b>liquid</b>	Something that can be poured.
<b>gas</b>	A substance that can move around freely.
<b>particles</b>	The tiniest little bit of a material or substance.
<b>evaporation</b>	When a liquid turns into a gas.
<b>condensation</b>	When a gas turns into a liquid.
<b>precipitation</b>	Water falling from the sky as rain.
<b>freeze</b>	When a liquid cools and becomes a solid.
<b>melt</b>	When a solid is heated and becomes a liquid.
<b>boil</b>	When a liquid is heated to the point that it becomes a gas.

### Key Facts

Solids are hard. They can only change shape if pushed or pulled.

Liquids can be poured. They take the shape of the container they are in.

Gases spread out and move around the room in the air.

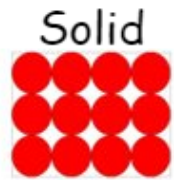
Materials can change state when heated or cooled.

Water can take the form of all three states: solid – ice, liquid – water, gas – water vapour.

Water boils at 100 degrees Celsius (known as boiling point) and freezes at 0 degrees Celsius (known as freezing point).

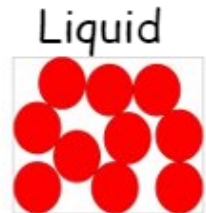
The water cycle is the process of water evaporating to become water vapour (clouds in the sky), then condensation occurs when the water vapour turns back to water and falls from the sky as precipitation (rain). The water gathers on the ground in puddles and lakes, then evaporates again.

## Particle diagrams



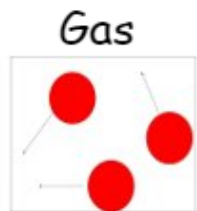
Solid

The particles in a solid are very closely packed together. They cannot move.



Liquid

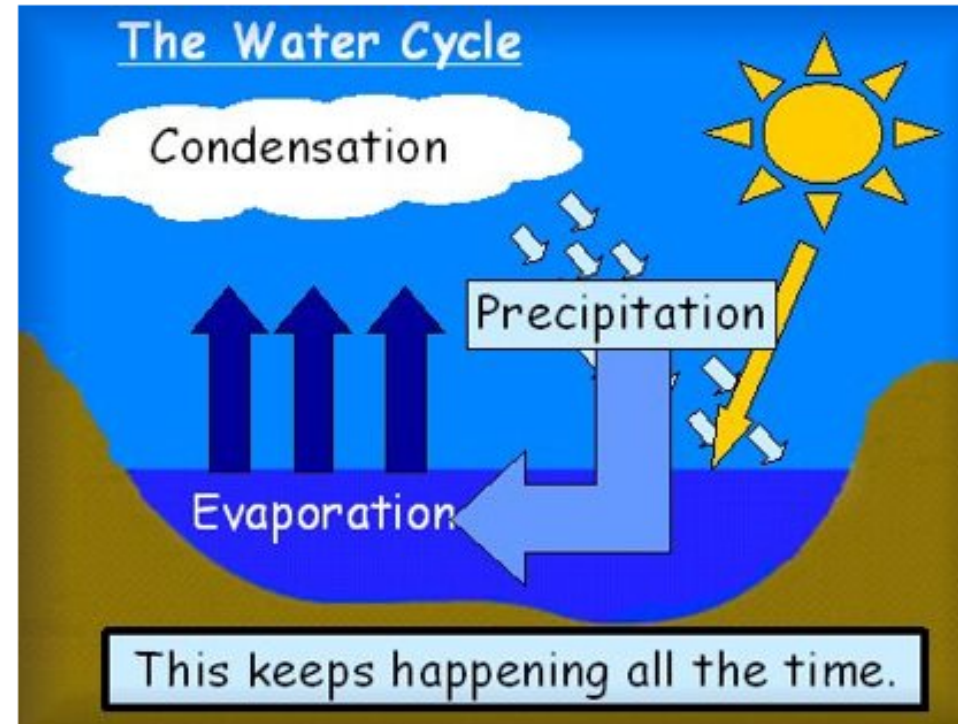
The particles in a liquid are able to move, staying close to each other. They take the shape of the container they're in.



Gas

The particles in a gas are able to move freely and spread out to fill a space..

## Water Cycle diagram



## Tier 2

## Vocabulary

structure	The way something is built or organised.
interpret	To explain what you think something is or why you think something happened using evidence.
equal	When two things are the same as each other or have the same value.
contrast	To explain how things are different from each other.
define	To write or say the meaning of a word.
culture	The ideas, customs and social behaviour of a group of people.