



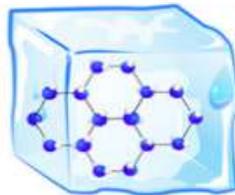
# States of Matter Year 4

## What I need to know

- Matter makes up our planet and the whole universe.
- There are three main states of matter – solids, liquids and gases.
- Matter can change state, depending on the temperature.
- Melting, evaporation, freezing and condensation describe the process of changing states.
- The water cycles happens because of some of these processes.

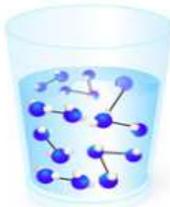
Solids hold their shape and are rigid.  
Solids have a fixed volume.  
Examples include ice cubes, rock, glass and most metals.

### Solid



Liquids do not hold their shape and are not rigid.  
Like solids, they have a fixed volume and change in shape to fill a container  
Liquids can be poured and keep a level, horizontal surface.  
Examples include water, oil, blood and milk.

### Liquid



Gases do not hold their shape and are not rigid.  
They do not have a fixed volume.  
Examples include oxygen, carbon dioxide and helium.

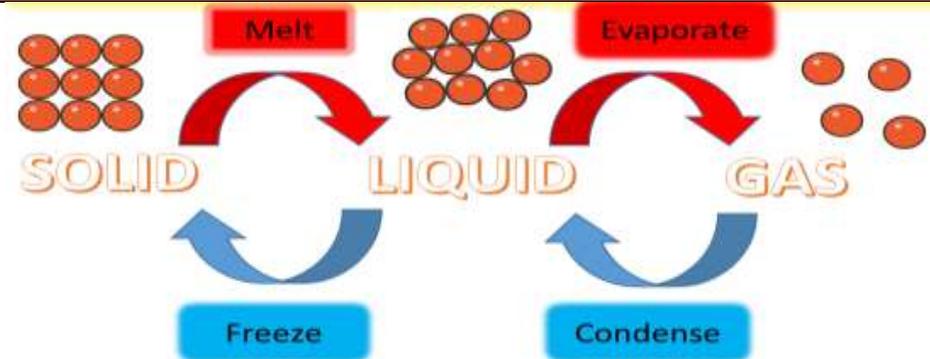
### Gas



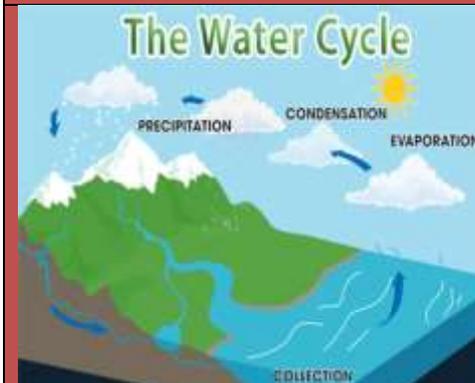
## Key Vocabulary

<b>Melting</b>	The state of change from a solid to a liquid.
<b>Freezing</b>	The state of change from a liquid to a solid.
<b>Boiling</b>	The change of state from a liquid to a gas when liquid is heated to a specified temperature and bubbles of gas can be seen.
<b>Evaporation</b>	The change of state from a liquid to a gas that happens slowly and at lower temperatures at the surface of the liquid.
<b>Condensation</b>	The change back from a solid to a liquid through cooling.
<b>Temperature</b>	How hot or cold something is, measured in degrees Celsius.

## Changing states of matter



## The Water Cycle



Water at the surface of seas and rivers etc. evaporates into water vapour (a gas). This rises, cools and condenses back into liquid forming clouds. When too much water has condensed, the clouds get too heavy and fall back down as rain, sleet, snow or hail and drain back into rivers etc. This is known as precipitation.



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**KNOWLEDGE ORGANISER**

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