



# KNOWLEDGE ORGANISER: SCIENCE – States of Matter Year 4 Block 6

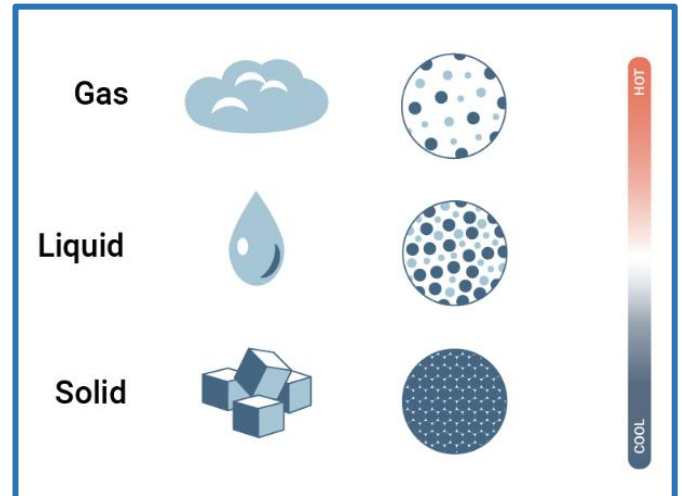
Key Vocabulary	
<b>states of matter</b>	Materials can be one of three states: <b>solids</b> , <b>liquids</b> or <b>gases</b> . Some materials can change from one state to another and back again.
<b>solids</b>	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. <b>Solids</b> take up the same amount of space no matter what has happened to them.
<b>liquids</b>	<b>Liquids</b> take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
<b>gases</b>	<b>Gases</b> can spread out to completely fill the container or room they are in. They do not have any fixed shape but they do have a mass.
<b>water vapour</b>	This is water that takes the form of a <b>gas</b> . When water is boiled, it <b>evaporates</b> into a <b>water vapour</b> .
<b>melt</b>	This is when a <b>solid</b> changes to a <b>liquid</b> .
<b>freeze</b>	<b>Liquid</b> turns to a <b>solid</b> during the <b>freezing</b> process.
<b>evaporate</b>	Turn a <b>liquid</b> into a <b>gas</b> .
<b>condense</b>	Turn a <b>gas</b> into a <b>liquid</b> .
<b>precipitation</b>	<b>Liquid</b> or <b>solid</b> particles that fall from a cloud as rain, sleet, hail or snow.

## Key Knowledge

There are three main states of matter: solids, liquids, and gases. Particles behave differently in each state — solids vibrate in place, liquids move around each other, and gases move freely. Matter can change state through heating or cooling — melting, freezing, evaporating, or condensing. Melting and freezing occur at specific temperatures called the melting and freezing points. Evaporation and condensation are processes that are part of the water cycle. The water cycle includes evaporation, condensation, and precipitation and is driven by the Sun's heat.

## Learning Intentions:

- To know the three states of matter and identify examples.
- To understand how particles behave in solids, liquids, and gases.
- To know how materials change state through heating or cooling.
- To understand evaporation and where it occurs.
- To understand condensation and its role in the water cycle.
- To be able to explain the water cycle using scientific vocabulary.



## Resources

### Websites

- ✓ [BBC Bitesize – States of Matter](#)
- ✓ [BBC Bitesize – The Water Cycle](#)
- ✓ [Mystery Science – States of Matter \(Free trials available\)](#)
- ✓ Once Upon A Raindrop

