

WJS - Knowledge Organiser

N.C. Statements

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius $(^{\circ}C)$
- · Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Key Vocabulary		Key
Spelling	Definition	Questions
air/oxygen	Water is its gaseous state is	What do the
water	known as water vapour and its	particles look
vapour/gas	tiny particles float in the air.	like in a
degrees	Unit of measure for	solid, liquid
Celcius	temperature (°C)	and gas?
change state	To change state means to	What state
heating	either heat or cool something,	of matter
(boil)/cooling	turning it from solid to liquid,	takes on the
melt/freeze	liquid to gas or liquid to solid.	shape of the
condensation	Turning water vapour to liquid	container
&		that it is
evaporation	Turning liquid to water vapour	poured in to?
Water Cycle	the water circulation process	What is a
particles	one of the very small parts of	melting
'	water	point?

Subject	Topic	Year	Term
Science	States of	3 & 4	Autumn 2
	Matter	()\(\frac{1}{2}\)	

What are the three states of matter?

Solids — hold their shape, Liquids — form a pool not a pile, Gases — escape from an unsealed container.

VVhat is special about VVo	ater?	
Solid	Liquid	Gas

Important Diagrams





Common Misconceptions

- •If a solid or liquid is heated the particles get bigger.
- ullet Melting is not the same as dissolving.
- Most of a gas is empty space.
- Atoms, molecules and particles are very very small.
- The particles in a liquid are still close together but they are free to move around





Working Safely

Never touch the steam when you boil water — it is hot.

When something is melted it may become hot - caution.