

**Ropsley C of E Primary School - Science  
Knowledge Organiser – States of Matter – Year 3-4**

**Vocabulary**

**Matter** – objects that take up space and have a mass.

**Solid** – holds its shape and has a fixed volume.

**Liquid** – fills up the shape of the bottom of a container.

**Gas** – fills up the space it is in and does not have a fixed volume.

**Temperature** – how hot or cold something is. Measured in degrees Celsius – a scale of temperature.

**Molecules** – the very tiny particles that make matter.

**Melting** – a solid heating and changing into a liquid.

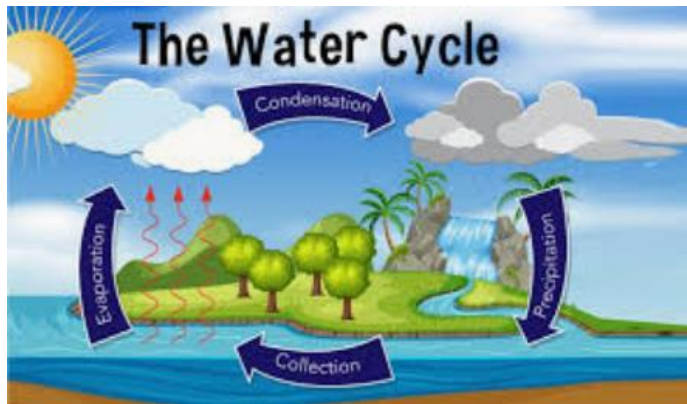
**Evaporation** – a liquid heating and changing into a gas.

**Condensation** – a gas cooling and changing into a liquid.

**Freezing** – a liquid cooling (0 degrees C) and changing into a solid.

**Boiling** – a liquid becoming hot (100 degrees C) and turning into a gas.

**Precipitation** – when water or snow falls from a cloud.






**Knowledge**

Knows how to compare and group materials together, according to whether they are solids, liquids or gases.

Knows that some materials change state when they are heated or cooled, and can measure or research the temperature at which this happens in degrees Celsius.

Knows how to identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

<p><b>Solids</b></p> 	<p>Stays the same shape Can be held in your hands Can be cut into a new shape</p> <p>Examples - wood, metal, rock, ice</p>
<p><b>Liquids</b></p> 	<p>Flows and can be poured Changes shape to its container Volume never changes</p> <p>Examples - water, juice, oil</p>
<p><b>Gases</b></p> 	<p>Often invisible Always fills its container Shape &amp; volume change</p> <p>Examples - oxygen, hydrogen, carbon dioxide</p>

