

**Year 4
States of Matter**

Week	NC objectives	REMEMBER (prior knowledge)	KNOW (new knowledge)
1 2 3 4 5 6	<ul style="list-style-type: none"> 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 (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<p>Distinguish between an object and the material from which it is made. (Y1 - Everyday materials) □ Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)</p> <p>Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock,</p>	<p>To know:</p> <p>Solids, liquids and gases are described by observable properties.</p> <p>Materials can be divided into solids, liquids and gases.</p> <p>A solid keeps its shape and has a fixed volume.</p> <p>A liquid has a fixed volume but changes in shape to fit the container. A liquid can be poured and keeps a level, horizontal surface.</p>

		paper and cardboard for particular uses. (Y2 - Uses of everyday materials)	A gas fills all available space; it has no fixed shape or volume.
		Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)	To know Granular and powdery solids like sand can be confused with liquids because they can be poured, but when poured they form a heap and they do not keep a level surface when tipped. Each individual grain demonstrates the properties of a solid
			To know: Heating causes solids to melt into liquids and liquids evaporate into gases. Cooling causes gases to condense into liquids and liquids to freeze into solids. The temperature at which given substances change state are always the same. The freezing point of water is 0oC. Water boils when it is heated to 100oC
			To know evaporation is the same state change as boiling (liquid to gas), but it happens slowly at lower temperatures and only at the surface of the liquid.

			Evaporation happens more quickly if the temperature is higher, the liquid is spread out or it is windy.
			To know water at the surface of seas, rivers etc. evaporates into water vapour (a gas). This rises, cools and condenses back into a liquid forming clouds. When too much water has condensed, the water droplets in the cloud get too heavy and fall back down as rain, snow, sleet etc. and drain back into rivers etc. This is known as precipitation.
Vocabulary	<u>Prior knowledge vocabulary</u> Changes, energy, materials	<u>New vocabulary</u> solid, liquid, gas, evaporation, condensation, particle, temperature, freezing, heating	