| Science | States of Matter | Year 4 |
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## Key Vocabulary

solid liquid gas state change melting freezing
melting point boiling point evaporation temperature water cycle

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| The **freezing point** of **water** is 0oC. **Water boils** when it is heated to 100oC. | **Know the stages of the water cycle and how they link.** |
| **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. | **Know the temperature at which materials change state.** |
| **Evaporation** happens more quickly if the **temperature is higher**, the liquid is spread out or it is windy. | **Be able to group materials based on their state of matter (solid, liquid, gas.** |
| 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. | Granular and powdery solids like sand can be confused with liquids but each individual grain demonstrates the properties of a solid. |
| 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.** This is the **water cycle.** | |

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| **solid** | keeps its shape and has a fixed volume |
| **liquid** | a fixed volume but changes in shape to fit the container, can be poured |
| **gas** | a gas fills all available space; it has no fixed shape or volume. |
| **evaporation** | same state change as boiling (liquid to gas) but it happens slowly |
| **condensation** | the change back from a gas to a liquid caused by cooling |
| **freezing** | a state change from liquid to solid |
| **boiling** | a change of state from liquid to gas that happens when a liquid is heated and bubbles of the gas can be seen in the liquid |
| **change of state** | a change from a solid, liquid or gas to another state |
| **melting** | a change from a solid to a liquid |
| **melting and boiling point** | the temperature at which something boils or melts |
| **precipitation** | rain, snow, sleet,etc. |