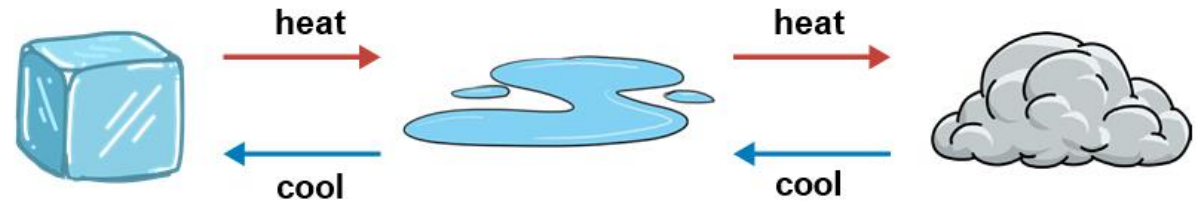




# Year 4: Chemistry: States of Matter:

## How do materials change from one state to another?



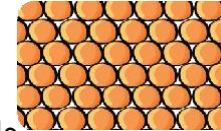
### Liquids

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. The particles of a liquid are slightly spread out and have little room to move.



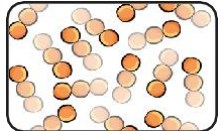
### Solids

A solid keeps its shape and has a fixed volume. 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. The particles of a solid are very compact and have no space to move.



### Gases

A gas fills all available space; it has no fixed shape or volume. The particles of a gas are very spread out and have a lot of space to move. Gases spread out or can be compressed in order to fill their container.



### Subject Specific Vocabulary

<b>Evaporation</b>	The process of changing from a liquid to a gas.
<b>Condensation</b>	The process of changing from a gas to a liquid.
<b>Freezing</b>	The process of changing from a liquid to a solid.
<b>Melting</b>	The process of changing from a solid to a liquid.
<b>Boiling</b>	The process of changing from a liquid to a gas. Boiling is a faster process than evaporation and often results in the liquid bubbling.

### Changing states

Matter can change state when heated up or cooled down. Adding heat can turn a solid into a liquid, this is called **melting**. Adding heat to a liquid will turn it into a gas, this is called **evaporation** or **boiling**. Cooling a gas turns it into a liquid, this is called **condensation**. Cooling a liquid turns it into a solid, this is called **freezing**.

### The Water Cycle

