



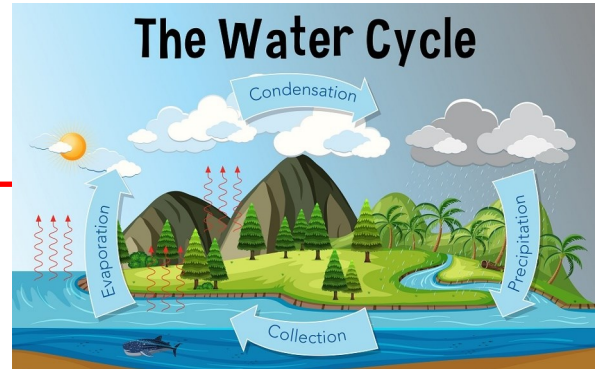
"Whatever you do, work at it with all your heart"

Colossians 3:23

States Of Matter

Year 4

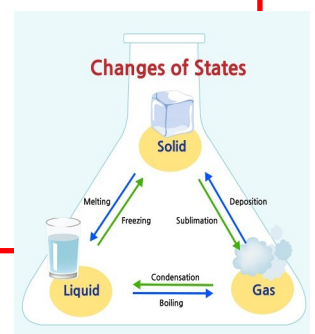
Spring 2



Key Knowledge:

To know that:

- ⇒ Materials are made up of particles
- ⇒ Materials can have 3 different states - solid, liquid or gas
- ⇒ Materials can change state if heated or cooled.
- ⇒ A solid is a material in which all particles are so tightly packed they cannot move and so have a fixed volume.
- ⇒ A liquid is a substance where the particles are able to move a little and can be poured—the volume is still fixed.
- ⇒ A gas is a substance in which the particles freely roam with speed and it will fill the space it is in.
- ⇒ Evaporation and condensation occur in the water cycle.
- ⇒ Evaporation is when a liquid is heated and changes to a gas.
- ⇒ Condensation is when a gas is cooled and turns to a liquid.
- ⇒ The rate of evaporation is linked to temperature.
- ⇒ Temperature is measured in degrees Celsius ($^{\circ}\text{C}$).



Key Vocabulary:

- ⇒ States of matter - the three different forms which materials can be in. (solids, liquids and gases)
- ⇒ Solids - Objects that hold their shapes, like bricks or coins.
- ⇒ Liquids - substances that flows easily such as water or oil.
- ⇒ Gases - air-like substances that can move around freely and don't have a shape.
- ⇒ Properties - something about a material that we can measure, see or feel
- ⇒ Boiling point - the temperature at which a liquid bubbles and turns from a liquid to a gas (e.g. Waters boiling point is 100 degrees Celsius)
- ⇒ Freezing point - the temperature at which a liquid turns into a solid. It occurs when heat is lost from an object. (e.g. Waters freezing point is 0 degrees Celsius)
- ⇒ Melting - the process of changing something from a solid into a liquid. (Ice turning into water).
- ⇒ Solidifying - to make or become a solid.
- ⇒ Condensation - process in which gas changes into a liquid when it touches a cooler surface.
- ⇒ Evaporation - the process of a liquid becoming a gas due to being heated
- ⇒ Temperature - the degree of hotness or coldness that can be measured using a thermometer.
- ⇒ Water cycle - the path that all water follows as it moves in different states around our planet.
- ⇒ Thermometer—the instrument used to measure temperature.