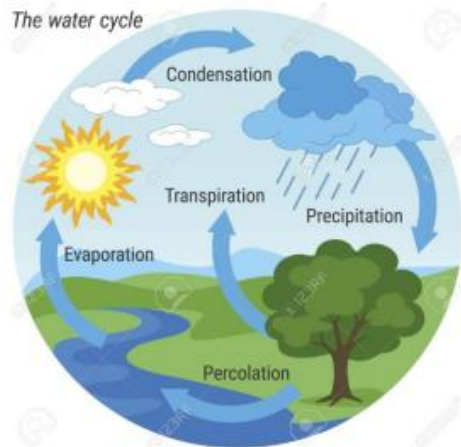


## Be the Change.... – Year 4 – Spring 1

### The Water Cycle



#### The Water Cycle

The water cycle is the journey water takes as it moves from the land to the sky and back again. It follows a cycle of evaporation, condensation and precipitation.

### Key Water Cycle Vocabulary

<b>Evaporation</b>	Is the process by which water changes from a liquid to a gas. The change of state is due to an increase in temperature.
<b>Condensation</b>	The process of water vapour in the atmosphere cools and changes into liquid water. This is the result of hot air becoming cool.
<b>Precipitation</b>	Water that falls from the clouds towards the ground e.g. rain, hail, sleet or snow.

Rivers in England, at their **mouth**, will flow into either the:  
North Sea, Irish Sea, English **Channel** or Atlantic Ocean.

Some rivers join up with other rivers (**tributaries**). The point where they meet is called a confluence.

### The Course of a River

#### The Upper Course

Rain falling on high ground collects in **channels** and flows downwards forming a stream. Streams run downhill and join other streams, increasing in size and speed, forming a river. The river here flows quickly and the channel has steep sides and runs through **valleys**. Features include - waterfalls and rapids.

#### The Middle Course

Fast flowing water causes **erosion** making the river deeper and wider. Features include - meanders.



#### The Lower Course



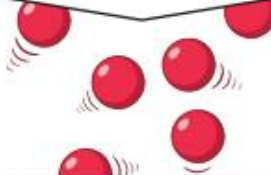
Rivers flow with less force due to being on flat land. The river **deposits** the eroded material that it has carried. Riverbanks have shallower sides. Features include - floodplains, deltas and estuaries.

### Key River Vocabulary

<b>Erosion</b>	The wearing away of rock, stones and soil by rivers, waves, wind, or glaciers.
<b>Source</b>	Where the river/stream begins. This is usually high up.
<b>Tributary</b>	Is a stream or river that flows into a larger river or lake.
<b>Confluence</b>	The point at which two rivers or streams join.
<b>Meander</b>	A winding curve or bend in a river. They are typical of the middle and lower course of a river.
<b>Floodplain</b>	Is the flat land of the river valley close to the river banks. It is usually found in the lower course of a river.
<b>Delta</b>	An area of low flatland where a river divides into several smaller rivers before flowing into the sea.
<b>Estuary</b>	Occurs near or at the mouth of a river, where the tide meets the current and the fresh and salt waters mix.
<b>Mouth</b>	The place where a river enters a lake, larger river or the ocean.


## Be the Change.... – Year 4 – Spring 1

There are three states of matter.

Solid	Liquid	Gas
		
Particles in a <b>solid</b> are close together and cannot move. They can only vibrate.	Particles in a <b>liquid</b> are close together but can move around each other easily.	Particles in a <b>gas</b> are spread out and can move around very quickly in all directions.

When water and other **liquids** reach a certain temperature, they change state into a **solid** or a **gas**. The temperatures that these changes happen at are called the boiling, **melting** or **freezing** point.


**solid**




➔

heat

**liquid**




**liquid**



➔

cold

**solid**



If a **solid** is heated to its **melting** point, it **melts** and changes to a **liquid**. This is because the particles start to move faster and faster until they are able to move over and around each other.

When **freezing** occurs, the particles in the **liquid** begin to slow down as they get colder and colder. They can then only move gently on the spot, giving them a **solid** structure.

### Key Vocabulary

- Condensation      When water vapour changes from a gas back to liquid.
- Evaporation      When liquid changes into gas, usually when heated.
- Freezing      When a liquid turns to a solid as it has reached its freezing point. These can differ depending on the substance
- Gases      Gaseous matter does not have any fixed shape but does have a mass. The matter within a gas is free moving.
- Liquids      Liquids take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured
- Melting      When a solid changes to a liquid, usually when heated.
- Solids      Solids keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them.
- Water vapour      Water that is in the form of a gas