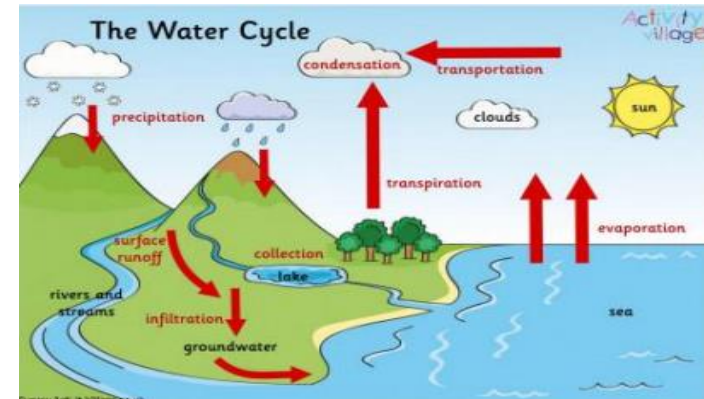


# Year 4 Red Kites Science Summer 1

## States of Matter

Key Vocabulary	Definition
<b>condensation</b>	A process where water vapour changes state from a gas to a liquid.
<b>cycle</b>	A series of events that repeat in the same way.
<b>evaporation</b>	A process where water changes state from a liquid into a gas.
<b>gas</b>	A state of matter that has no fixed shape and can expand to fill the container it is in.
<b>groundwater</b>	The water found underground in the cracks and spaces in soil, sand and rock.
<b>humidity</b>	A measure of how much water there is in the air.
<b>liquid</b>	A state of matter that takes the shape of the container that holds it.
<b>matter</b>	Anything that takes up space is called matter.
<b>particles</b>	An extremely tiny piece of matter.
<b>precipitation</b>	The process of water moving from clouds back to the surface of the earth. It can be rain, hail, sleet or snow.
<b>reservoir</b>	A man-made lake.
<b>solid</b>	A state of matter that takes keeps its shape unless a force is applied. e.g. ice.
<b>steam</b>	Small droplets of water floating in the air
<b>water vapour</b>	Water molecules in a gaseous form.

### The Water Cycle



Water vapour rises and collects in the sky as clouds. When the water vapour cools down, it condenses, turning back into liquid, and falls back to earth as precipitation: rain, snow, hail or sleet. This water then moves across land as run-off, and ends up in rivers and streams.

### There are Three States of Water

Water in its solid form is called ice. Water in its gaseous form is called water vapour. Water vapour is different to steam which is small droplets of water floating in the air. Water vapour is water molecules in a gaseous form.



### Clouds

Clouds are made of water. They are formed when water in the air cools down and changes from a gas called water vapour into droplets of liquid water, or even tiny ice crystals. This process is called condensation. The water droplets are big enough to catch the light and allow us to see them, but so small and light that they hang in the sky and don't fall to the ground. The water droplets gather together to make clouds. There are four main types of clouds:

#### Cirrus

White, thin, wispy, and high up in the sky, made of tiny ice crystals.



#### Cumulus

White and fluffy, they contain water droplets but are usually a sign of fair weather.



#### Stratus

A thin layer of cloud that covers the whole sky.



#### Nimbostratus

Dark grey, sit low in the sky and bring continuous rain or snow.

