

Y4-Materials and States of Matter

Water cycle

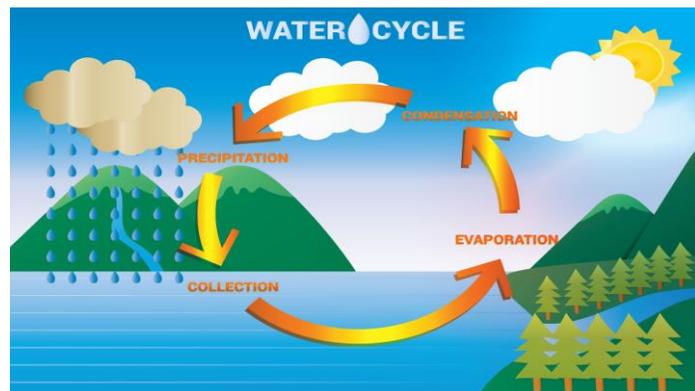
The water cycle is the complete journey that water makes. It is a cycle so does not have a 'starting' point.

Evaporation: This is when warmth from the sun causes water from oceans, lakes, streams, ice and soils to rise into the air and turn into water vapour (gas). Water vapour droplets join together to make clouds!

Condensation: This is when water vapour in the air cools down and turns back into liquid water.

Precipitation: This is when water (in the form of rain, snow, hail or sleet) falls from clouds in the sky.

Collection: This is when water that falls from the clouds as rain, snow, hail or sleet, collects in the oceans, rivers, lakes, streams. Most will infiltrate (soak into) the ground and will collect as underground water.



Changing state

Matter can change from one state to another if it is heated or cooled. If ice (a solid) is heated it changes to water (a liquid). This change is called melting. If water is heated, it changes to steam (a gas).

You do an experiment.

1. Get some chocolate and cut into smaller pieces.
2. Put the chocolate into a bowl and heat with an adult.

3. Stir and observe the changes.

What state of matter was the chocolate at the start?

What state of matter is it now?

What change is taking place here?

What happened to the molecules in this change?

Do it yourself!

Set up your own water cycle in your classroom or at home and draw a labelled diagram
Helpful Hint: use a fish tank or clear jar!

Solid, Liquid or Gas?

Gathering, recording and classifying (Working Scientifically)

Solid	Liquid	Gas

Scientific Vocabulary

Evaporation	Changing from a liquid to a gas.
Condensation	Changing from a gas to a liquid.
Solid	A solid holds its shape and it can be held in your hands.
Liquid	A liquid fills up the shape of the bottom of a container. It flows and can be poured. It has a fixed volume.
Gas	A gas can escape from an unsealed container. It will fill to the space it is in. It can change shape or volume.
Reversible	Can be put back to its previous state.
Irreversible	Can not be put back to its previous state.
Molecule	The very tiny particles that make matter.
Matter	Objects that take up space and have mass are called matter. Everything around you is made up of matter.