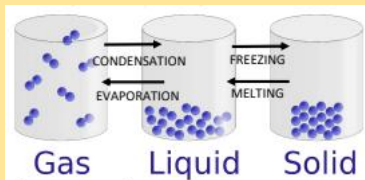




# Raging Rivers

## The three states of matter

- Gas:** particles are far apart and randomly arranged/move around
- Liquid:** particles are close but randomly arranged/move around
- Solid:** particles are very close together/vibrate around a fixed position.



## Separating materials

You can separate materials/states of matter by sieving, filtration, magnetism and evaporation.



## Famous rivers around the world:

- River Amazon In South America



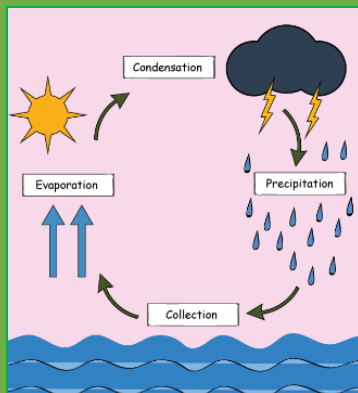
- River Nile in Africa
- River Ganges in Asia
- Mississippi River in America
- River Danube in Europe

## Famous rivers in the UK:

- River Thames



- River Severn
- River Trent
- River Wye
- River Tay
- River Avon
- River Tyne



## The water cycle

The sun heats up the water on land, in rivers, lakes and sea and turns it into water vapour. The water vapour rises into the air and turns into drops of liquid water to form clouds. Then, the water falls back to the land, lakes, rivers and seas as rain or snow. The cycle then starts again.

## Climate change

Climate change, or global warming, is the process of our planet heating up. Climate change means we could get more rainfall, our seasons could change, the sea ice will melt and the sea-levels will rise. What causes climate change: burning fossil fuels, farming and deforestation.

## Changing states

Some liquids, solids and gases can change states. Some changes will be reversible and some will be irreversible.

You can change the states of matter by dissolving, heating (melting and evaporation) or cooling (condensing and freezing).



## magnetism

Metal attracts to the magnet and leaves the other solid behind such as paper clips and match sticks.



river

A **river** is freshwater flowing across the surface of the land, usually to the sea.



## melting

**Melting** is when a solid changes into a liquid due to heat. They stay the same material, for example ice to water.



## irreversible

If something is **irreversible**, once it has been changed it cannot be changed back.



## climate

**Climate** is a description of the average weather conditions in a place for the past 30 years or so.



## fossil fuels

Oil, gas and coal are **fossil fuels** because they are the remains of animals that lived long ago.



## filtration

When a mixture of liquid and solids haven't dissolved, they can be filtered using paper with tiny holes, such as sand and water.



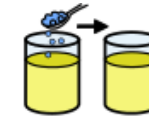
## evaporation

**Evaporation** is the process of turning a liquid into a vapour.



## rainfall

**Rainfall** is the amount of precipitation a place/country has.



## soluble

If something is **soluble** then it dissolves.



## reversible

If something is **reversible**, it can be changed and then changed back.



## precipitation

**Precipitation** is rain, snow, sleet or hail that falls to the ground.



## condensing

If water vapour is cooled, it changes to water. This change is called **condensing**.



## condensation

**Condensation** is water which collects as droplets on a cold surface. It is the process of a gas turning back into a liquid.



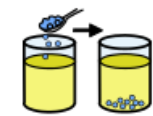
## dissolving

**Dissolving** is when the particles of solids mix with particles or liquids, often appearing like it has disappeared e.g. sugar in water.



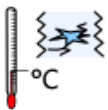
## deforestation

**Deforestation** is where large areas of trees are cut down.



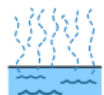
## insoluble

If something is **insoluble** then it does not dissolve.



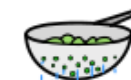
## freezing

If water is cooled, it changes to ice. This change is called **freezing**.



## water vapour

**Water vapour** is water in its gas form.



## sieving

**Sieving** is used to separate two solids of different sizes, such as flour and raisins.



source

A **source** is where the river starts.