

Misty Mountain, Winding River**What should I already know?**

- Erosion is a physical process.
- Erosion is caused by wind and water
- Tectonic plates pull apart and push together
- The movement of tectonic plates create mountains and volcanoes.
- A physical feature forms naturally and changes over time.

**Linked Science knowledge for the topic**

- The water cycle has four stages: evaporation, condensation, precipitation, collection.
- Water in lakes, rivers and streams is warmed by the Sun, causing the liquid water to evaporate and rise into the air as water vapour.
- As the water vapour rises, it cools and condenses to form liquid water droplets in clouds. The clouds become full of water, until the water falls back to the ground as precipitation (rain, hail, snow and ice).
- The fallen water collects back in lakes, rivers and streams. Evaporation and condensation are caused by temperature changes.

**Vocabulary**

<b>Delta</b>	A triangular piece of land at the mouth of a river because of a build up of sediment
<b>Floodplain</b>	An area of flat land next to a river that floods when rivers burst their banks.
<b>Meander</b>	A bend in a river or stream
<b>Oxbow lake</b>	A curved lake that was once a meander in a river.
<b>Waterfall</b>	A cascade of water that falls from a higher level to a lower level.
<b>Erosion</b>	Wearing away and removal of rock and soil by wind or water
<b>Transportation</b>	When rock and soil are moved by flowing water.
<b>Deposition</b>	When water slows down rock and soil are left behind
<b>Precipitation</b>	Water that falls as rain, hail or snow.
<b>Condensation</b>	Gas or water vapour cooling down into a liquid
<b>Evaporation</b>	Liquid heating up and changing into a gas or water vapour
<b>Infiltration</b>	Water that soaks into the ground or collects into seas, streams, lakes and rivers.
<b>Sediment</b>	Small pieces of sand, soil or stone

**By the end of the topic we will be able to...**

Name, locate, describe and compare rivers and mountains. Explain how rivers are used and how they have changed the landscape over time. Explain how different mountain types are formed and use contour lines to describe an area on a map. We will also be able to describe the water cycle.

## River stages

### The upper course

The upper course of a river is narrow. Water flows quickly over the riverbed, carrying rocks that erode the land and create steep-sided, V-shaped valleys.



### The middle course

The middle course of a river grows wider and deeper as the land becomes flatter. Bends called meanders form.



### The lower course

The lower course is the widest part of a river. The land is flat, and the water flows into the sea at the river's mouth.



## Changing landscapes

Rivers, seas and oceans transform a landscape through erosion, deposition and transportation.

### Erosion

Erosion is the wearing away and removal of rock and soil by means of wind or water.

### Transportation

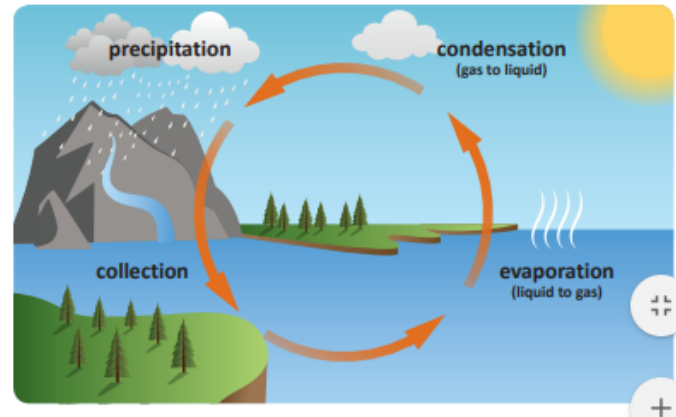
Transportation is when rocks and soil that have been dislodged and worn away by erosion are transported in flowing water.

### Deposition

Deposition happens when flowing water slows down. Eroded rock and soil that have been transported are left behind.

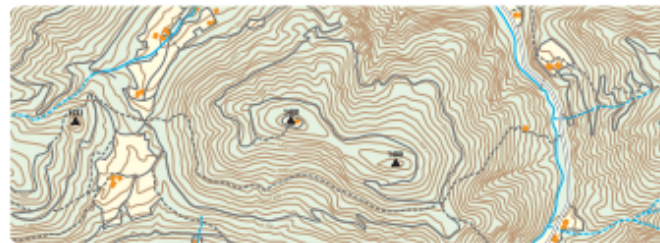
## Water cycle

The water cycle is the journey water takes as it travels from rivers, lakes, seas and oceans into the sky and then back down to the ground. Water changes state as it goes around the cycle in four stages: evaporation, condensation, precipitation and collection.



## Contour lines

Contour lines are used on maps to show the topography of the land. They join places of equal height and are usually labelled in intervals of 10m. If contour lines on a map are close together, the land is steep. If they are far apart, the land is flat.



contour lines

## Types of mountain

Mountains can be classified according to what they look like and how they were formed.

**Fold mountains** form when tectonic plates collide with each other. One plate is pushed down while the other is pushed up and compressed, forming folds.



**Volcanic mountains** are formed when lava, ash and gases erupt and then cool. This type of mountain often has steep, symmetrical slopes.



**Fault-block mountains** form at plate boundaries. The earth on one side of the boundary is forced up, and the other side collapses.



**Dome mountains** are the result of when magma is pushed upwards against the Earth's crust. Instead of erupting through the crust, the magma cools and hardens.



**Plateau mountains** are formed when land is lifted by magma below the Earth's crust. Large, flat areas of land are forced upwards, creating a plateau.

