

What is the journey of a river?

In this unit children will navigate towards an understanding of rivers, their uses, features and effect on the environment. They will get the chance to study the water cycle, find out how rivers are formed, explore the journey of a river from source to mouth, investigate why rivers are important and what they are used for, as well as choosing a river around the world to investigate in depth and learn the names and locations of major rivers in the UK and the world.

In this unit children will:

- Describe and understand key aspects of the water cycle and rivers.
- Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers).
- Lists features of a river.
- Identify the sea a river flows into.
- Explain how meanders form.
- Find meanders on a map and digital photographs.
- Use the index in an atlas to find rivers.
- Show the place in which the source of a river is found.
- Describe how deposition changes the shape of a river.
- Explain how water erodes a riverbank.
- Record ways that rivers are used.
- List advantages and disadvantages for different uses of a river.
- Use maps, atlases, globes and digital mapping to locate countries and describe features studied.

Prior Learning

Year 1 Continents and Oceans

Year 2 Seaside

Year 3 The UK

Cross Curricular Links

History Rivers

Literacy Stories from other cultures and explanation texts – rivers and volcanoes

Key Vocabulary

confluence - where two rivers join and become a larger river

course - the channel along which the river flows
current a steady and continuous flowing movement of some of the water in a river, lake, or sea

delta - an area of low land where a river splits and spreads out into several branches before entering the sea

deposition - when a substance has been left somewhere as a result of a process

erosion - the gradual destruction and removal of rock or soil in a particular area by rivers, the sea, or the weather

estuary - the wide part of a river where it joins the sea

lake - a large area of fresh water, surrounded by land

meander - a large bend in a river mouth where a river flows into the sea

ocean - one of the five very large areas of salt water on the Earth's surface.

sedimentary - solid material that settles at the bottom of a liquid, especially earth and pieces of rock that have been carried along and then left somewhere by water, ice, or wind

source - where something comes from

spring - a natural outflow of ground water

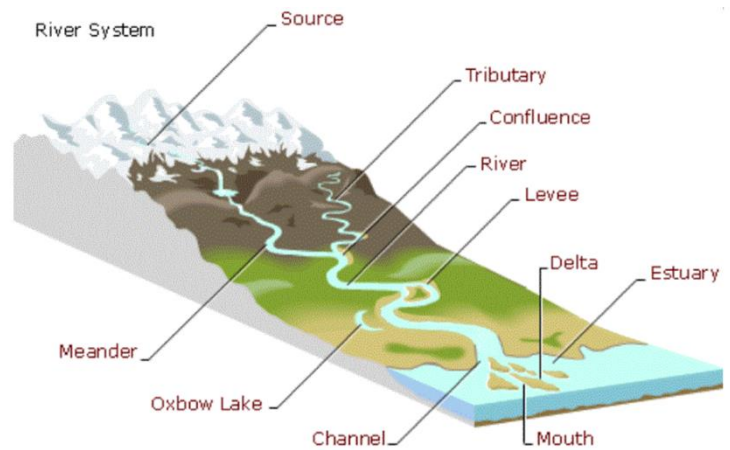
stream - a small narrow river

tributary - a stream or river that flows into a larger one

water cycle - the circulation of the earth's water

Key Knowledge

- 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.
 - Evaporation – when water changes from liquid to gas due to heat.
 - Condensation – when water vapour cools and turns into clouds.
 - Precipitation – rain, hail, sleet and snow that falls from the clouds.
 - Collection - when water that falls from the clouds, collects in the oceans, rivers, lakes, streams. Most will infiltrate soak into the ground and will collect as underground water.
- Rivers have sources, channels, tributaries, and mouths.
- Rivers are natural streams of fresh water that flow into seas, oceans and lakes.
- Most rivers start in high ground or in the mountains.
- The water flows naturally downwards, sometimes underground and eventually to the sea.
- The source is the place where a river starts.
- The point where a river joins the sea is called its mouth.
- Rivers do not travel in straight lines as they have to travel downhill, they have to avoid obstacles in the land like hills, people have changed their courses over time. Another way rivers change shape is through erosion and deposition.
- As meanders grow, sometimes the water can erode away so much of the river's banks that two meanders will merge together. When this happens, the water will take this newer, shorter route and not travel around the previous course. Over time, deposition of the river's load will block off the old part of the river, and an oxbow lake will form.
- Waterfalls also cause erosion – the force of the water and the river's load (stones and other debris it is carrying) hitting the riverbed causes rocks to wear away and become displaced. (The riverbed would become deeper beneath the waterfall; the overhang would erode and could eventually collapse).



- **The Upper Course** - Rain falling in highland areas flows downwards and collects in channels, forming a stream. As the stream continues to run downhill, it is joined by other streams and increases in size and speed. The point where two rivers join is called a confluence.
- **The Middle Course** - As a river reaches its middle course, the fast flowing water causes erosion, which makes it deeper and wider. The river erodes left and right, forming horse-shoe like loops called meanders.
- **The Lower Course** - In the lower course, a river is in flatland and flows slowly. The force of the water is lower than in the other stages, so the river deposits all the bits of eroded land it has been carrying with it.

Key Questions

How would you describe this river?

What kind of features can you spot?

What is the mouth?

Where do most rivers start?

Can you identify the tributaries of the rivers on these maps?

Which is the longest river in the world? Is it also the biggest?

Can you name the sea that each flows into?

What do you notice about where most rivers seem to start?

What stage of the river's journey is shown, and which features can you identify?