



Y5 Geography — We are Hydrologists



Key Knowledge

What I Should Already Know

- Countries of the UK (Key Stage 1)
- Regions in the UK (Year 3 and 4)
- Key counties in the UK (Year 3 and 4)
- The difference between human and physical geographical features (Year 3)
- What a settlement is (Year 3)
- The main types of farming (Year 4)
- What hydroelectricity is (Year 4)
- Key Ordnance Survey symbols (Year 3 and 4)

What do River Hydrologists do?

River Guides take people on guided tours on rivers. They need to know where the key rivers are (to understand where tourists will visit), the physical features of a river (so that they can ensure everyone is safe) and the human features around the river (so that they can tell the people on their tour about them).



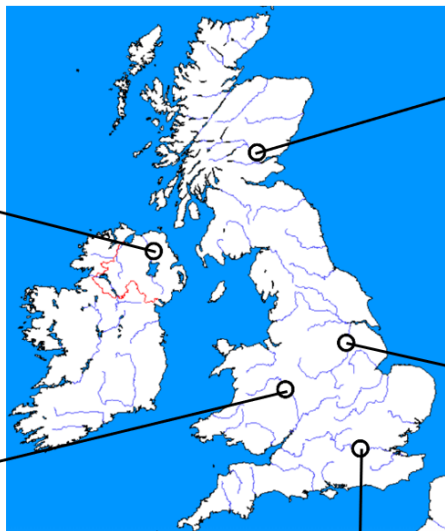
Key Rivers in the UK

River Bann

- Longest river in Northern Ireland (129 km)
- Major town: Coleraine, Londonderry
- Region: Northern Ireland
- Country: Northern Ireland

River Severn

- Longest river in the UK (353 km)
- Major city: Bristol, Gloucestershire
- Regions: Wales, West Midlands, South West
- Countries: Wales and England



River Tay

- Longest river in Scotland (188 km)
- Major city: Dundee, Angus
- Region: Scotland
- Country: Scotland

River Trent

- Third longest river in the UK (298 km)
- Major city: Nottingham, Nottinghamshire
- Regions: West Midlands, East Midlands, Yorkshire & Humber
- Country: England

River Thames

- Second longest river in the UK (345 km)
- Major city: London, Greater London
- Regions: London and the South East
- Country: England

Key Vocabulary

Word	Definition
spring	An opening in the ground that water comes out of.
source	The point at which a river starts (see diagram on back).
upper course	The first stage of a river, usually on high ground (see diagram on back).
middle course	The second stage of a river, where the land is flatter and the river is wider (see diagram on back).
lower course	The land is flat and the river is at its widest (see diagram on back).
channel	The riverbed and banks in which water flows.
erosion	Material is cut away from river beds and banks by the water (see diagram on back).
deposition	Material is dropped when the river flows too slowly to carry it.
v-shaped valley	A valley with very steep slopes that a river flows through.
waterfall	A steep fall of water from a height (see diagram on back).
tributaries	Small streams that join a larger river (see diagram on back).
meander	A natural bend in a river (see diagram on back).
oxbow lake	Part a meander that becomes isolated from the main river channel (see diagram on back).
estuary	Where the fresh water of a river mixes with the salt water of the sea (see diagram on back).
mouth	The point where the river ends (see diagram on back).
flooding	The covering of normally dry land with a large amount of water.
floodplain	Flat land that gets covered in water if the river floods (see diagram on back).
flood defence	Something used to prevent a body of water from flooding.
port	Where ships can load and unload deliveries.
heavy industry	Where large goods are made in bulk.



Y5 Geography — We are Hydrologists



Key Knowledge

Key Features of Rivers

Source

Where the river was first formed, often due to rain, melting snow or springs.

Tributaries

Small streams that join the larger river.

Upper Course

Waterfall

Formed when a river flows over both hard and soft rocks. The soft rocks are eroded to create a steep drop in the land.

Meander (from erosion)

The force of the water erodes the river bank creating a bend.

Meander (from deposition)

Rocks and other materials that have fallen into the river due to erosion are dropped on the side of the river when the river flows too slowly to carry it, creating a bend.

Middle Course

Erosion

The force of the water erodes the river bank creating a slope.

Oxbow Lake

Formed when erosion makes the bend of the meander so tight that it gets cut off from the rest of the river.

Mouth and Estuary

Where the river ends and flows into another body of water, often a sea or ocean.

Floodplain

An area of flat land next to a river, which gets covered in water if the river floods.

The Upper Course

The first stage of a river

Common Physical Features

River flows quickly, waterfalls form, v-shaped valleys, steep slopes, poor soil, colder weather

Common Human Features

Land around it is often used for pastoral farming as the soil, slopes and weather make it difficult for crops to grow. Hydroelectric energy is generated due to fast flow. Tourists visit due to waterfalls and white water rafting.

The Middle Course

The second stage of a river

Common Physical Features

River flows more slowly, meanders form, flatter land, flooding may occur, fertile soil, better weather

Common Human Features

Mixture of dairy and arable farming due to better weather, soil and gentler slopes. Tourists often stay in B&Bs here as there is good transport links to the upper and lower course.

The Lower Course

The final stage of a river

Common Physical Features

River flows slowly and smoothly, very flat land, better weather, floodplain, estuary, mouth

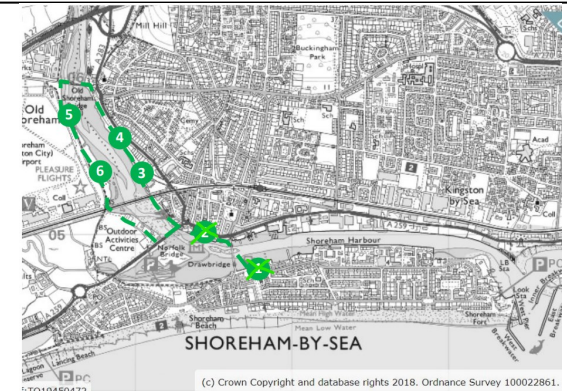
Common Human Features

Mixture of dairy and arable farming due to good weather, soil, flat land and ease of selling produce to nearby settlements. Heavy industry may exist on floodplain as flat land is needed and goods are easily transported to ports.

Fieldwork

The River Adur

- Length: 32 km
- Location: **Sussex, South East England** (our local river)



Fieldwork on the lower course of the River Adur

Before you go, you will draw a sketch map of the route you are walking, using an ordnance survey map to help you. On your trip, you will label the key physical features you will see: mudflats and floodplain. You will also label the key human features you will see: flood defences, airport, housing and recreation, as well as the features below. We will also test how fast the river is flowing and decide whether it is typical for the lower course.

Key Ordnance Survey Symbols



Water activities (paddle)



Recreation, leisure or sports centre



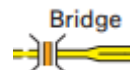
Castle or fort



Parking



Picnic site



Bridge