

Rivers

What are the features of my local river?

Lesson 2: What are rivers and how are they formed?



Geographical knowledge and concepts



Geographical knowledge



Locational knowledge



Place knowledge



Human and physical geography



Geographical skills and fieldwork

Geographical concepts



Place



Space



Scale



Physical and human processes



Interdependence



Environmental impact



Sustainable development



Cultural awareness and diversity



What are the features of my local river?



Lesson 1: How does the water cycle keep rivers flowing?

Lesson 2: What are rivers and how are they formed?

Lesson 3: How can I plan a fieldwork investigation comparing a local river in my region and the River Trent?

Lesson 4: How can I collect data from a local river in my region?

Lesson 5: How will I present and analyse data collected from fieldwork?



Key vocabulary for this lesson



river

– water that flows naturally across land



flow

– when something moves in a smooth and steady way

Physical and human processes



Physical and human processes

New word alert!



source – where something begins



Hi again! I'm Charlotte, a **hydrologist**.

I study rainfall, **rivers**, and the movement of water across the land. These are all **physical processes**.

It travels from its **source** in high ground, across the land, and eventually into another body of water, like a lake, the sea, an ocean, or even another river.



What are rivers?



Physical and human processes

New word alert!



riverbank – the land along the sides of a river, which holds it within its channel

New word alert!





channel – a path which something can move through

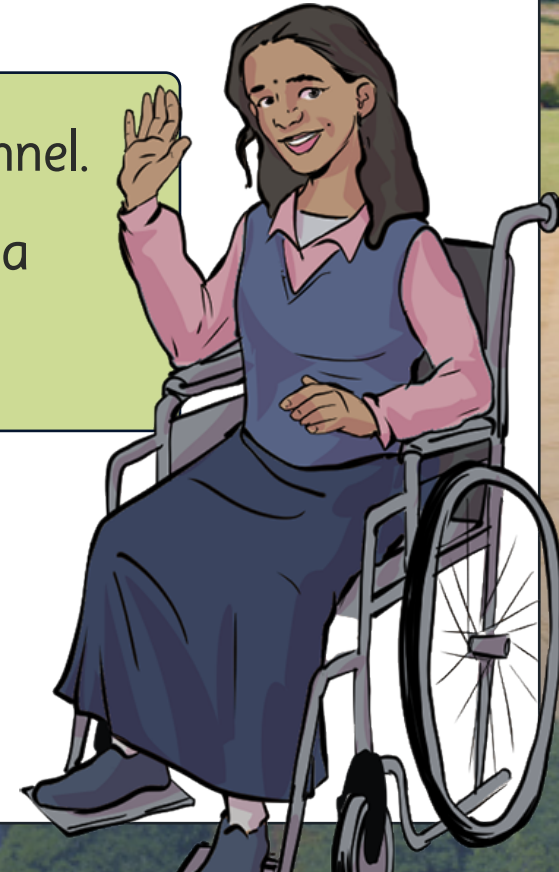


New word alert!



riverbed – the ground beneath a river, often made of mud, sand, rocks or pebbles

A river flows  along a  channel. It has **riverbanks** on both sides and a **riverbed** at the bottom.



The upper course



Physical and human processes

New word alert!



upper course – the first stage of a river, usually found in high ground



Rivers usually begin as tiny **streams** of water **flowing** down from high ground, like a mountain.

The water **flows** ≡ downhill, following the shape of the land and travelling through a **channel** . ↗↘

Sometimes, small streams join, and as more water **collects** in the **channel**, the stream becomes larger - eventually becoming a **river** . 🌊

This part of a river's journey is the **upper course**.



The middle course





Physical and human processes

New word alert!

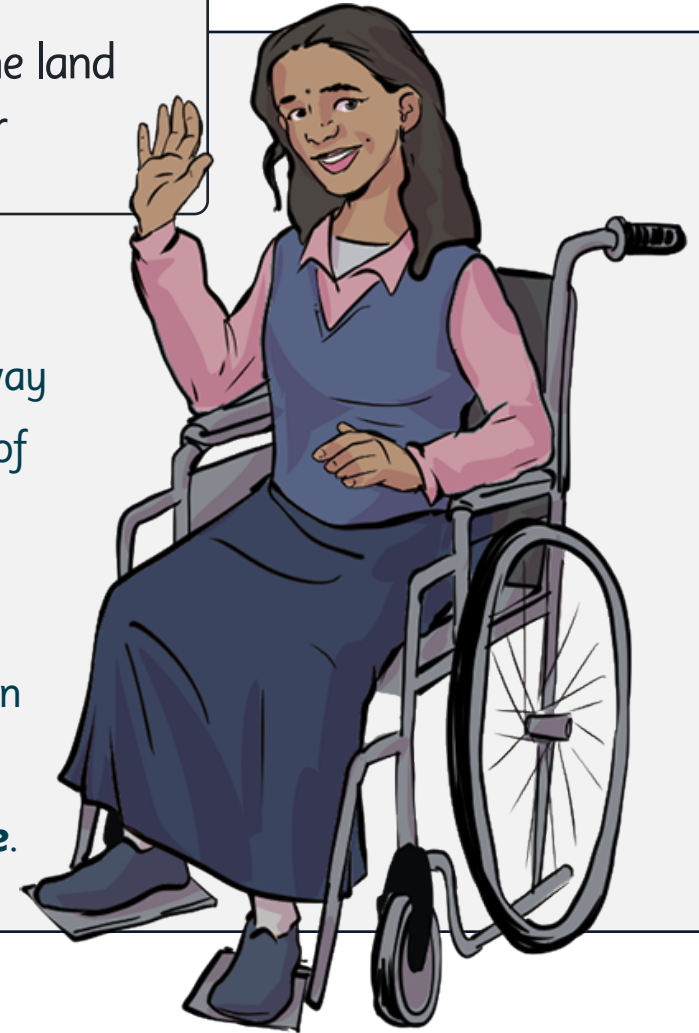


middle course – the second stage of a river, where the land is flatter and the river becomes wider, deeper, and slower



As the **river**  **flows**  downhill and across the land, it can wear away rocks and soil, changing the shape of the land over time.

When the river reaches flatter, lower ground, it begins to slow down and becomes wider. This part of the river's journey is the **middle course**.

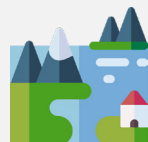


The lower course





Physical and human processes


New word alert!



lower course – the third and final stage of a river, where the land is flat, and the river is at its widest



As the river  reaches its final stage, it flows  through very flat land. It moves slowly and carries a lot of water.

The river may split into smaller channels  or form wide, muddy areas called deltas before reaching the sea.

This part of the river's journey is the **lower course**.



Let's watch



Physical and human processes

Let's watch the video below and list the key **physical features** found at each stage of a river's journey on your 'Let's watch' worksheet.

Let's watch

Watch the video, 'How is a river formed?' and write them below.

Listen for the key physical features of each stage of a river's journey (upper course, middle course, lower course) and write them below.

upper course	middle course	lower course

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How is a river formed?



<https://www.youtube.com/watch?v=PDHvt7pNEc4&list=PLbwwnj-Aki0N2aOh2LUt2H2xqjrVw1gPY&index=5&t=68s>



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Activity



Physical and human processes

Label the upper course, middle course, and lower course of the river on your activity worksheet.

Then, read each statement carefully and colour-code it to show which stage of the river it belongs to (upper, middle, or lower course).

Be ready to share your feedback with the class.

Activity

Work with your learning partner to identify and label each stage of a river. Cut out and match each description to the correct part of the river.

key vocabulary

- lower course
- middle course
- upper course

Water flows over flat land, often near the sea or a large lake.	The riverbed is deeper and wider.	The river is narrow and fast flowing.
The land is flatter, and the river starts to curve.	The river is at its widest and slowest.	The water flows more slowly.
The water is deepest here before it reaches the sea or lake.	The river channel is shallow.	This is where the river begins, usually high up in the hills or mountains.

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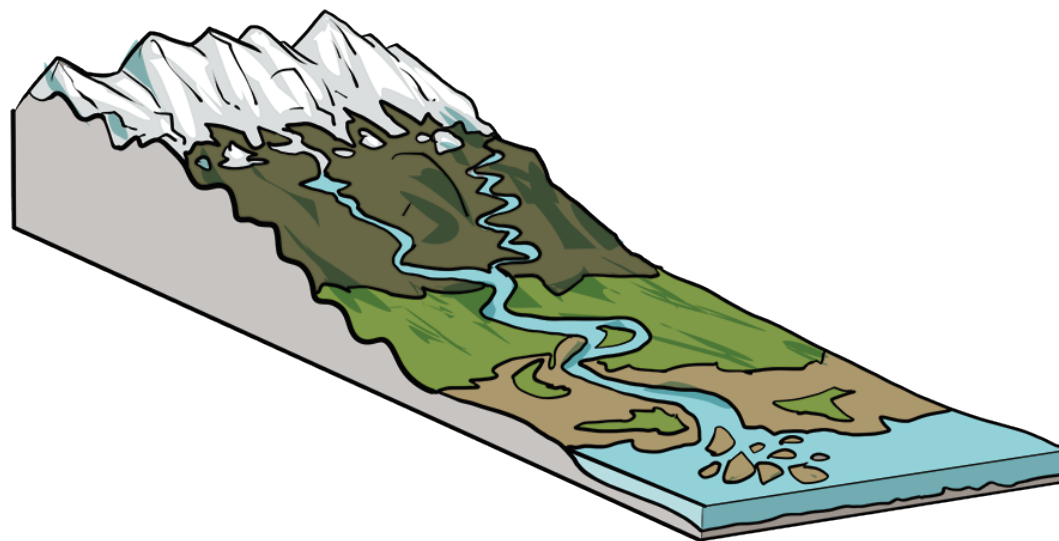


Activity



Physical and human processes

answers



upper course

This is where the river begins, usually high up in the hills or mountains.

The river channel is shallow.

The river is narrow and fast flowing.



middle course

The riverbed is deeper and wider.

The water flows more slowly.

The land is flatter, and the river starts to curve.



lower course

The river is at its widest and slowest.

The water is deepest here before it reaches the sea or lake.

Water flows over flat land, often near the sea or a large lake.



Challenge



Human and physical geography

Discuss the following questions with your learning partner.

Which course of the river do you think changes the land the most? Why?

Be ready to share your feedback with the class.

Use the following sentence starter to help you.

"I think the ____ course changes the land the most because..."



Challenge



Human and physical geography

answers



upper course

...the river flows fast and erodes rocks, cutting out valleys.
Steep slopes cause the river to wear away the land quickly.



middle course

...the river bends (meanders) and erodes the banks.
The river wears away and drops soil and rocks here, which changes the land.



lower course

...the river deposits lots of sediment, building up floodplains and deltas.
Flooding in the lower course can change the land a lot.

