KS3 Geography: revision notes

Rivers

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The drainage basin

- A **drainage basin** is the area of land drained by a river. Its edge is the watershed.
- The **source** is where a river begins, a **tributary** is a smaller river that joins it, a **confluence** is where two rivers meet, and the mouth is where it reaches the sea or a lake.
- In the upper course, the river is steep with a V-shaped valley. In the middle course, it **meanders** across a wider valley. In the lower course, it is wide and slow, with a flat **floodplain** and an estuary.

Erosion and transport

- Erosion: **hydraulic action** (the force of the water), **abrasion** (stones scraping the bed and banks), **attrition** (stones knocking together and becoming smaller and rounder) and solution (rocks such as limestone dissolving).
- Transport: traction (large boulders rolled along the bed), saltation (small stones bouncing), suspension (fine material carried in the water) and solution (dissolved material).
- Deposition happens when the river slows down and drops what it is carrying.

River landforms

- Waterfalls form where hard rock lies over softer rock. The soft rock is eroded faster, making a plunge pool and an overhang, which collapses. The waterfall moves back upstream, leaving a gorge.
- **Meanders**: the water flows fastest on the outside of a bend, eroding a river cliff, and slowest on the inside, depositing a slip-off slope.
- **Oxbow lakes** form when a river cuts through the neck of a **meander**, usually during a flood, and the old bend is cut off.
- **Floodplains** and **levees** (raised banks) form from deposition during floods.

Your notes

Flooding

- Physical causes: heavy or long rainfall, snowmelt, steep slopes and saturated or impermeable ground.
- Human causes: building (tarmac and concrete are impermeable) and deforestation make water reach the river faster.
- Hard engineering: dams, embankments and flood walls. Soft engineering: planting trees, not building on **floodplains** and letting some land flood (washlands).

Key terms

Drainage basin	The area of land drained by a river and its tributaries.
Source	Where a river begins.
Tributary	A smaller river that joins a larger one.
Confluence	Where two rivers join.
Mouth	Where a river meets the sea or a lake.
Hydraulic action	Erosion by the force of the water.
Abrasion	Erosion by stones scraping the river bed and banks.
Attrition	Stones knocking together and becoming smaller and rounder.
Meander	A bend in a river.
Oxbow lake	A lake formed when a meander is cut off.
Floodplain	The flat land beside a river that floods.
Levee	A raised bank along a river.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What is the source of a river?
2. What is a confluence?
3. What is the mouth of a river?
4. Which process is stones knocking together and becoming smaller and rounder?
5. What is hydraulic action?
6. What shape is a valley in a river's upper course?
7. How does a waterfall form?
8. Where is the water fastest on a meander?

Answers

1. Where it begins
2. Where two rivers join

Your notes

3. Where it flows into the sea or a lake
4. Attrition
5. The force of the water hitting the bed and banks
6. V-shaped
7. Soft rock under hard rock is eroded faster, leaving an overhang that collapses
8. On the outside of the bend

What to do next

Practise 13 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

Free revision for GCSE and KS3 at lycolearn.co.uk. Some notes are for one exam board only, and say so in brackets.

Your notes