

SUBJECT: Geography

UNIT: Year 8 World of Water



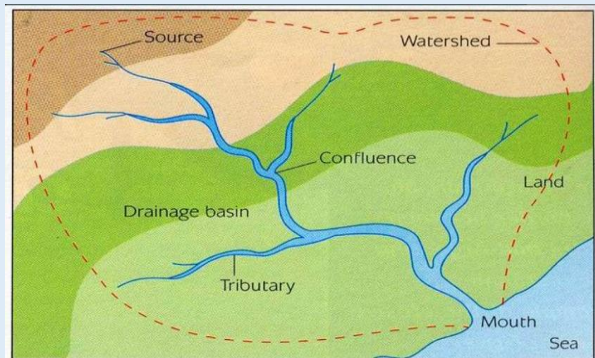
Drainage basin key terms:

Mouth – End of the river

Source – Start of the river

Tributary – small river/stream

Confluence – Where two rivers meet



Causes and impacts of river flooding

Causes:

Human – Infrastructure, agriculture, drainage

Physical – snow melt, impermeable rock

Impacts:

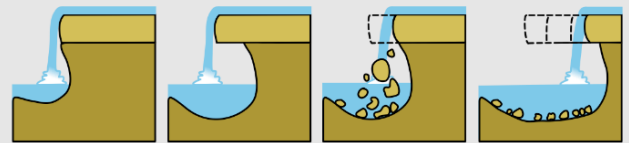
Social – People have to be evacuated, homes are damaged

Economic – businesses damaged

Environmental – farmland destroyed

Features of erosion :Waterfall and gorges

There are bands of hard rock on top of soft rock. The soft rock erodes more quickly. The river undercuts the harder rock leaving an overhang which is unsupported and collapses into the plunge pool. The waterfall slowly moves upstream and creates a steep sided gorge.

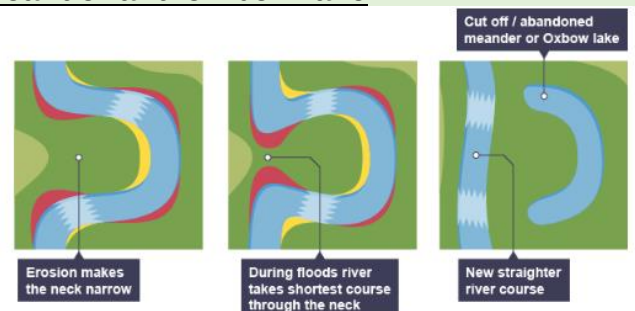


Features of deposition :Delta

The river reaches a body of water such as the sea. The river begins to lose energy and deposition occurs. The water finds the quickest way to enter the sea and distributaries are formed which increases the drainage.

Features of erosion and deposition:

Meander and ox-bow lake



Erosion

Abrasion – wearing away of the river bed as rocks hit against them

Attrition - Rocks that bash together to become smooth/smaller.

Hydraulic Action - Water enters cracks in the banks, air compresses, causing the crack to expand.

Solution - A chemical reaction that dissolves rocks.

Transportation

Solution – The river dissolves minerals from the rocks and is carried in the water.

Traction – large stones roll along the river bed.

Suspension – If particles are small enough the river can lift them and carry them long distances.

Saltation – stones are bounced along the river bed.

Deposition

When the river loses energy, it drops sediment.

Morpeth case study:

Reservoirs built upstream to only allow a small amount of water through the river that the towns defences can manage.

Embankments have been built to raise the river level.

Hard engineering: Reservoirs

Advantages- Attract tourists

Disadvantages – Expensive

Soft engineering: Floodplain zoning

Advantages – less damages are caused, leading to fewer insurance claims.

Disadvantages – Not always possible to change existing land use.