

Which factors link to today's learning?
Social / Economic / Environmental

KS4 Geography - Y10: The UK Landscape - Rivers Knowledge Organiser

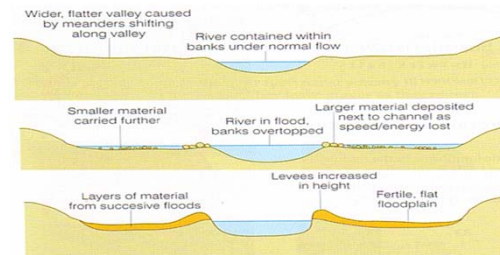
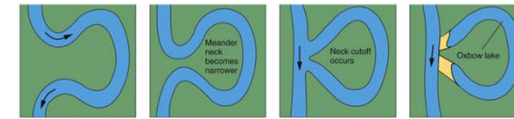
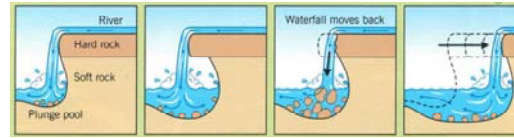


Here are some key words from this topic. Can you add anymore?

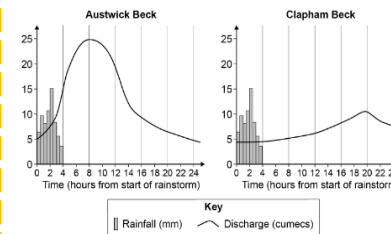
The Big Picture

- How and why do rivers change?
- How are landscapes created in the upper course?
- How are landscapes created in the middle course?
- How are landscapes created in the lower course?
- Is the River Tees typical of other rivers?
- How do human and physical features affect flood risk?
- To what extent is soft engineering beneficial when managing flood risk?
- To what extent is hard engineering beneficial when managing flood risk?
- What was done in Banbury and how effective was it?

As a river moves the processes of erosion, transportation and deposition taking place in the channel, influence the shape of the river and the features found along it. In the upper course, where erosion dominates, waterfalls are found. In the middle course, deposition starts to happen too, creating meanders and oxbow lakes. Deposition is a key process in the lower course, leading to levees and floodplains.



Flooding is more likely to happen when there is increased rainfall, when the geology is impermeable rocks, when the relief is flat and when the rain falls in a built up area, rather than in a vegetated area. A flood hydrograph shows the amount and speed of increase in the discharge of a river after a period of rainfall.



Hard engineering is when physical changes are made to a river in order to stop it from flooding. Soft engineering is when we work along with the natural processes of a river to reduce the impacts of flooding. Hard engineering is expensive and can be harmful to the environment but is highly effective. Whereas, soft engineering is cheaper but might not stop flooding from happening at all. Hard and soft engineering strategies were used in Banbury to stop flooding in their town.

Abrasion	Rocks carried along by the river scrape and wear down the river bed and banks.
Attrition	Rocks being carried by the river smash together and break into smaller, rounder pieces.
Hydraulic action (power)	The process by which fast-flowing water forces air into cracks in a river bed. The pressure causes the crack to widen, breaking off rock.
Solution	Soluble parts of the rock are dissolved into the river and are carried in the water.
Traction	The rolling of boulders and rocks along the river bed.
Saltation	Stones bouncing along the river bed
suspension	Fine material e.g. sand floating in the water while the water is moving
Geology	The type and positioning of rock underneath the soil layer.
Relief	The height, shape and slope of the land.
Land use	The way the land is being used, e.g. roads and buildings, or vegetated.
Engineering	Ways of managing a natural feature to prevent harm to people, can be hard or soft engineering.
Discharge	The volume of water passing a given point in a river at a point in time.

CEIAG Link: For this topic we can make links to a variety of professions:

Environmental consultant
Planning Officer
Constructional Engineer



If you are interested in the above careers, don't forget you can do some research and speak to Mrs Ackroyd.