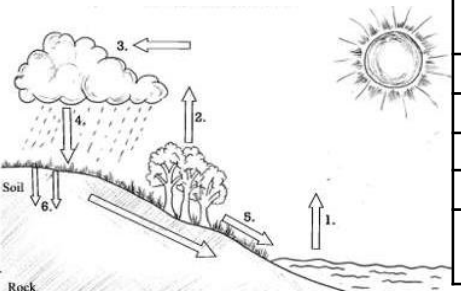
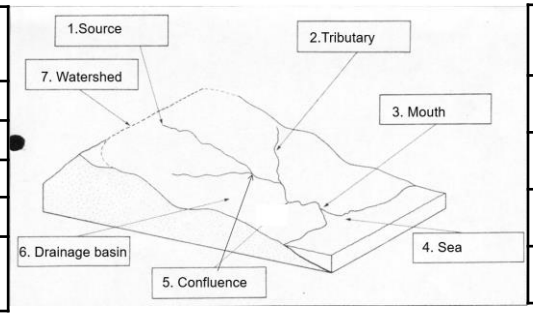
KS3 Geography Knowledge: Rivers



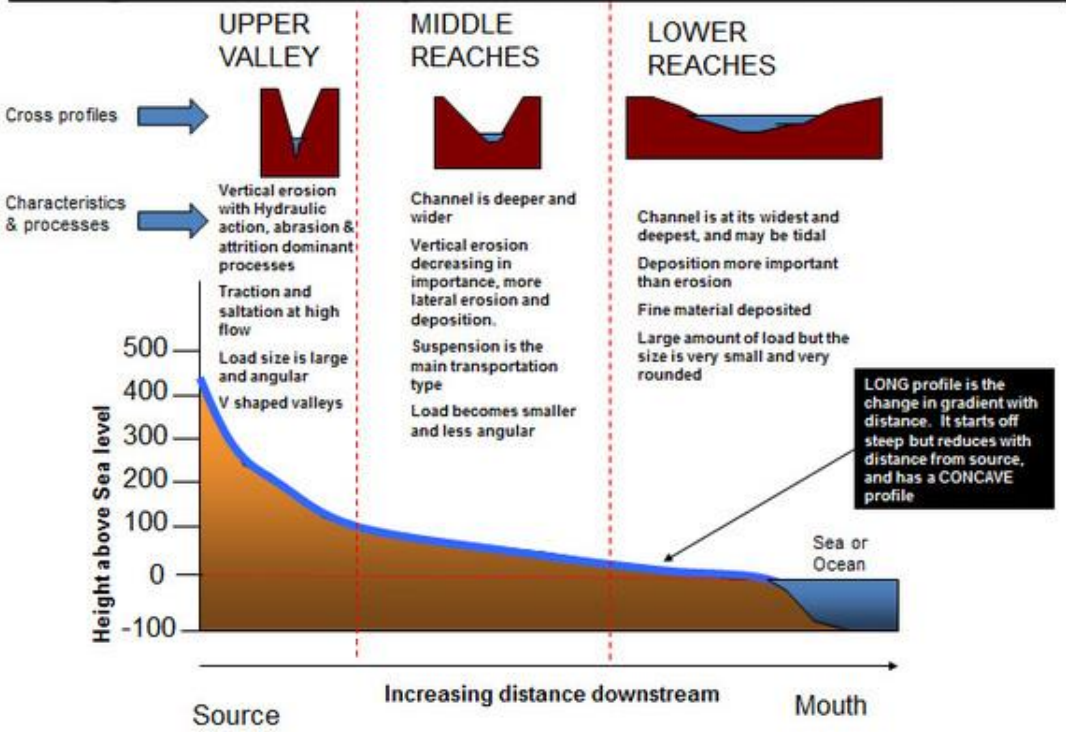
Evaporation	When the sun heats up water from the sea and it goes into the air.
Transpiration	When the sun heats up water from the leaves of trees.
Condensation	When water vapour cools and turns into clouds
Precipitation	Rain, hail, sleet and snow that falls from the clouds
Surface run-off	When the water runs off the surface of the ground.
Groundwater flow	When water goes into the ground (infiltration) and flows through the rocks/soil underground.



Drainage Basin	The area of land in which water drains into a specific river.
Source	The point where the river begins.
Tributary	A stream or small river that joins a larger stream or big river.
Confluence	A point where two streams or rivers meet.
Mouth	The point where the river meets the sea or ocean.

River	A channel of water which flows downstream.
Erosion	The wearing away or breakdown of rocks by water
Hydraulic Action	The force of water hits against the river channel/cliff and removes material. It is common with fast moving, high energy water.
Abrasion	Sediment carried by the water hits the river channel and removes material like sandpaper
Corrosion/solution	Chemicals in the water dissolve rocks (e.g. limestone)
Attrition	Stones carried by the water hit into each other, gradually making the rocks smaller and smoother.
Weathering	**Weathering describes the breaking down or dissolving of rocks in the atmosphere**
Chemical	Chemicals in the rain will dissolve the rock
Physical	Temperature changes can affect the rock and cause it to break open
Biological	**Plants and animals can weaken the structure of the rock until it breaks away.**
Transportation	Eroded material is carried by the river downstream.
Traction	Large particles roll along the bottom.
Saltation	Pebble-sized particles bounce along the river/.sea bed.
Suspension	Small particles (silt and clay) are carried in the water.
Solution	Soluble materials dissolve in the water and are carried along.
Deposition	Deposition takes place where the water does not have enough energy to carry sediment (its load). As a result it is dropped.

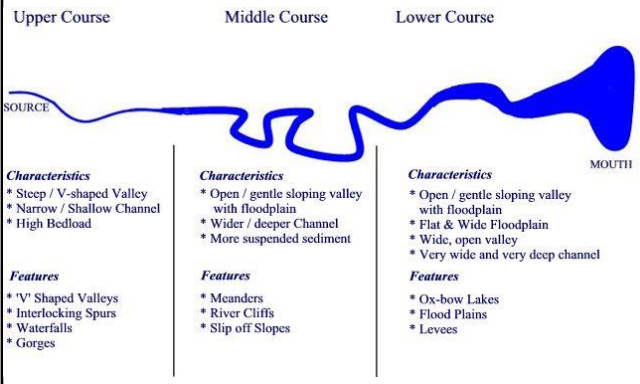
Long and cross profiles on a TYPICAL river



River Severn Case Study

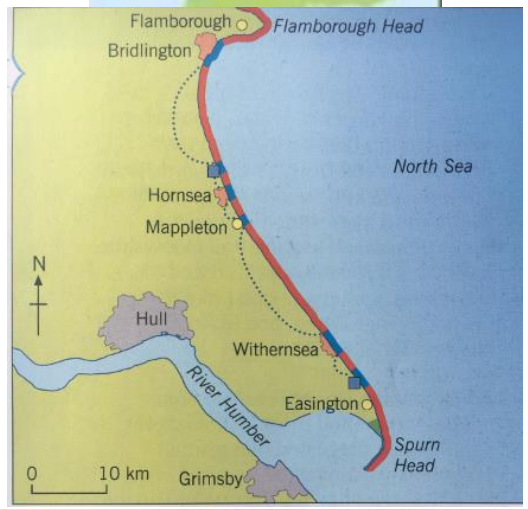
Location of the River Severn

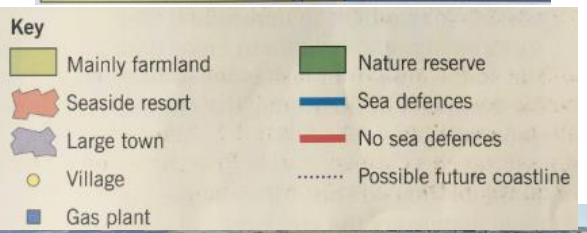
Characteristics	Upper Course	Middle Course	Lower Course
Slope	usually steep	quite steep	gentle
Width	narrow	quite wide	wide
Depth	shallow	quite deep	deep
Straightness	winding	meandering	big meanders
Load	little	some	lots
Type of load	large/small angular	medium/small rounded	small+ rounded
Main work	erosion transportation	Transportation	transportation deposition
Valley width	narrow	quite wide	wide



Coastline	The outline of the land, where the land meets the sea.
Social uses of the coastline	sightseeing, beaches, yacht clubs, marinas, fishing, sailing, tourism
Economic uses of the coastline	shipping port (import, export), ferry, tourism industry, transport (ferry) industry, fishing industry.
Environmental uses of the coastline	nature reserves, wildlife conservation areas where they look after habitats

The Holderness coast is located…	In Yorkshire.
The Holderness has a population of…	312,000 people
Coastal towns along the Holderness coast are	Hornsea, Withernsea and Bridlington which have industries such as tourism, fishing and retail.
Coastal villages along the Holderness coast are	Coastal villages include: Mappleton, Skipsea and Easington
Spurn Head is…	A spit and considered an area of environmental importance. It needs to receive a constant supply of sediment from along the coast .
The Holderness is eroding at a rate of…	2 metre per year.
Evidence of erosion along the Holderness coastline:	• 32 villages have been lost since the Roman times. • It is estimated that the coastline has retreated by 3½ miles since the Roman times. • More than 200 homes are predicted to fall into the sea along the Holderness coast in the next 100 years.
Shoreline management plan	A plan to decide how the coast will be protected. There are three strategies: hold the line, managed retreat, do nothing.
Hold the line	Maintain current position of coastline using hard and soft engineering.
Managed retreat	A deliberate decision to allow the sea to flood an area of low-value land to protect areas of higher value land.
Do nothing	Do nothing to protect the coastline: allow it to flood and erode.





The Cleethorpes coast is located…	North East Lincolnshire .
The Holderness has a population of…	312,000 people
Areas near Cleethorpes are	Grimsby, Humberston,
The Cleethorpes coastline is not eroding much at all as….	There are a number of coastal protection methods such as groynes, sea walls and rip rap
Do nothing	Do nothing to protect the coastline: allow it to flood and erode. This is happened at the Fitties

Opportunities of Tourism	Challenges of Tourism
Jobs Boosts the economy Income provided for upkeep of the area Attracts other businesses to locate there Big events/cultural activities Brings people together Money to improve services (transport, roads, public facilities)	Litter Overcrowded Loss of peace and quiet Habitats disrupted Loss of biodiversity