

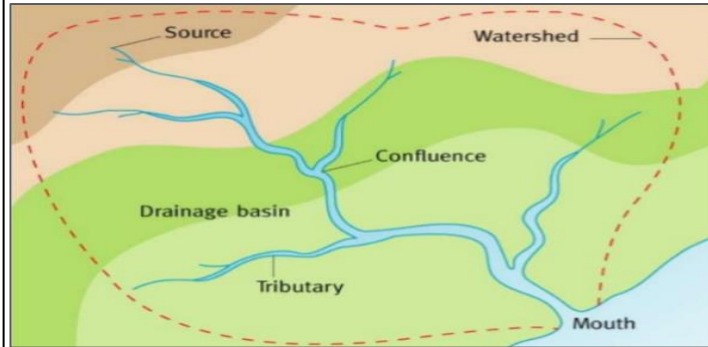
7.1 Year 7 Module 1

Water on the land



Geography Knowledge Organiser

7.1.1 - Drainage basins



Drainage Basin- is the area of land drained by a river and its tributaries

Watershed- the area of high land forming the edge of a river basin

Source- where a river begins

Mouth- where a river meets the sea

Tributary- a small river or stream that joins a larger river

Confluence- the point at which two rivers meet

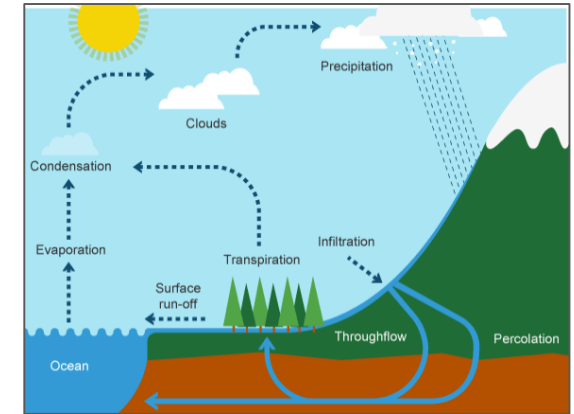
Main river channel- main river flow in the drainage basin

Floodplain- flat land on the sides of the river that takes the overflow water

Impact of Glaciation on a Drainage Basin

U and V-shaped valleys form following periods of glaciation, as the temperature drops and snow/rain falls into cracks it freezes, known as freeze thaw, causing the rock to expand and break. This process increases the size of the drainage basin, and leads to higher levels of river discharge.

7.1.2 - Water cycle



Condensation- when water vapour cools to form clouds

Evaporation- where water is turned into water vapour (gas)

Precipitation- any water that falls from the sky (rain, snow etc)

Interception- vegetation traps water before it reaches the ground

Transpiration- water is evaporated from the leaves of vegetation

Surface runoff- water runs across the ground to a river

Infiltration- water seeps into the soil in the ground

Percolation- water seeps into rock deeper in the ground

Throughflow- water flows through the soil and rock in the ground

7.1.3 - River processes

Erosion processes

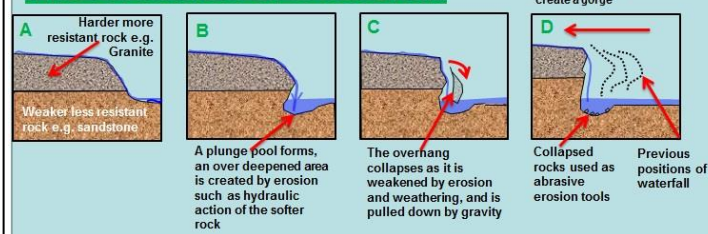
Hydraulic action	The sheer force of the water hitting the banks (sides) of the river
Abrasion	The stones and pebbles (load) carried by the river hits and scrapes the banks of the river
Solution	Slightly acidic river water dissolves some rocks
Attrition	Stones and boulders hit each other in the river and break up becoming smaller and smoother

Transport processes

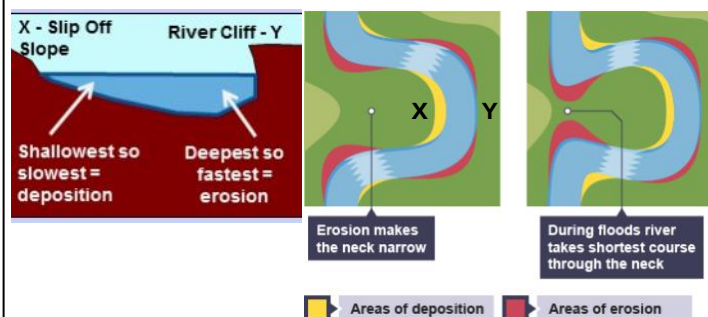
Traction	Large boulders and rocks are rolled along the river bed
Saltation	Small pebbles and stones are bounced along the river bed (leapfrogging)
Suspension	Sand grains are carried along in the water
Solution	Minerals are dissolved in the water and carried along in solution

7.1.4 - River landforms

The formation of a waterfall



The formation of a meander



7.1.5 - Flooding

Toon Monsoon 2012 Causes

In the summer the jet stream was over us bringing us storms; 2 inches of rain fell and the old drain systems couldn't cope; Storms came over the Pennine mountains creating more rain.

Toon Monsoon 2012 Effects

- [Health/People]** 500 homes were flooded;
- [Health/People]** People were evacuated from their homes some were in temporary housing and B&Bs for months;
- [Health/People]** Drivers abandoned their cars and walked home;
- [Infrastructure]** Some roads collapse and were closed off;
- [Infrastructure]** The Tyne Tunnel was flooded and closed;
- [Infrastructure]** The metro lines were flooded;
- [Economy]** £8 million damage for the local councils;
- [Economy]** The Hoppins was cancelled;
- [Economy]** The Swan Pub in Heworth was flooded.

Toon Monsoon 2012 Responses

Laying waterproof concrete and putting plug sockets 1m+; In Morpeth they put flood defences in e.g. a flood storage reservoir, flood gates, flood walls; £100 million has been spent on flood defences.