Geography Knowledge Organiser - Unit 13 Rivers

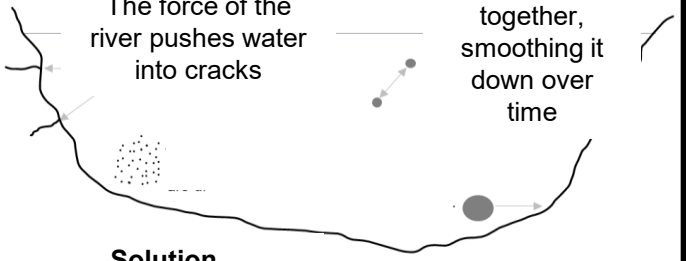
1. Keywords	
Load	The sediment/material carried by the river
Drainage Basin	The area which water drains from to enter a river.
Discharge	The volume of water carried by a river
Flood	Occurs when river discharge exceeds river channel capacity and water spills out of the channel onto the floodplain and other areas.
Flood risk	The predicted frequency of floods in an area.
Hard engineering	Building artificial structures using material such as rocks, concrete and steel to reduce, disrupt or stop natural river processes.
2. Keywords	
Hydrograph	A graph which shows the discharge of a river, related to rainfall, over a period of time.
Long profile	The gradient of a river, from its source to its mouth. Meander A pronounced bend in a river.
Soft engineering	The use of the natural environment surrounding a river. They work with the river's natural processes.
Source	The start of the river
Tributary	A smaller river adding (contributing) water to a larger river.
Watershed	The boundary between two drainage basins, where water either drains into one river system, or another.

3. The Right to Clean Water

We all have a right to clean water. According to the Sustainable Development Goals, goal 6: **Ensure access to water and sanitation for all.** Access to safe water, sanitation and hygiene is the most basic human need for health and wellbeing.

In 2023, the UN General Assembly President Csaba Kőrösi described the water cycle as a global common to be protected for the good of all humans.

5. Erosion



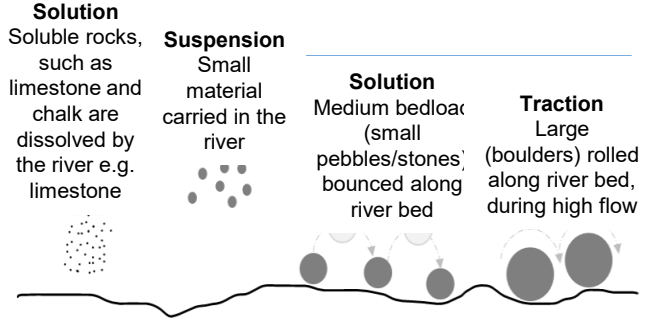
Hydraulic Action
The force of the river pushes water into cracks

Attrition
Material in the river collides together, smoothing it down over time

Solution
Soluble rocks, such as limestone and chalk are dissolved by the river

Abrasion
Material hits of rubs the side of the riverbed

5. Transportation



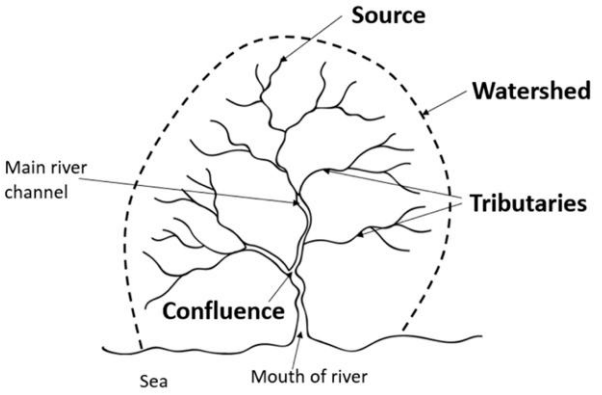
Solution
Soluble rocks, such as limestone and chalk are dissolved by the river e.g. limestone

Suspension
Small material carried in the river

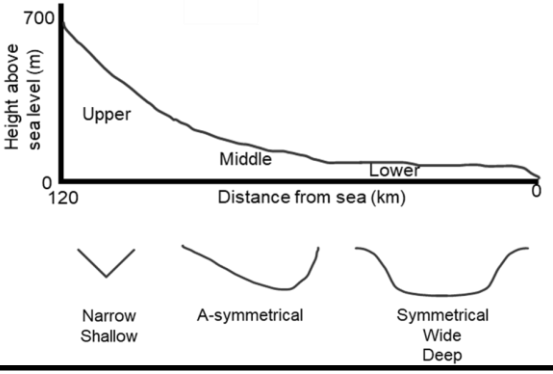
Solution
Medium bedload (small pebbles/stones) bounced along river bed

Traction
Large (boulders) rolled along river bed, during high flow

4. Drainage Basin Diagram



6. Long and Cross-Profile of a River



6. Formation of waterfall

1) River flows over alternative types of rocks.

2) River erodes soft rock faster creating a step.

3) Further hydraulic action and abrasion form a plunge pool beneath.

4) Hard rock above is undercut leaving cap rock which collapses providing more material for erosion.

5) Waterfall retreats leaving steep sided gorge.