

Unit 1: Physical Geography

Section B: Water on the land

Key Ideas	Specification Content	😊	😐	😞
The shape of river valleys changes as rivers flow downstream due to the dominance of different processes.	Processes of erosion – hydraulic action, abrasion, attrition, solution; vertical and lateral erosion. Processes of transportation – traction, saltation, suspension and solution. Deposition and reasons for it. Long profile and changing cross profile.			
Distinctive landforms result from different processes as rivers flow downstream.	Landforms resulting from erosion – waterfalls and gorges; landforms resulting from erosion and deposition – meanders and ox-bow lakes; landforms resulting from deposition – levees and flood plains.			
The amount of water in a river fluctuates due to a number of reasons.	Factors affecting discharge – amount and type of rainfall, temperature, previous weather conditions, relief, rock type (impermeable, permeable, porous and pervious) and land use.			
Rivers flood due to a number of physical and human causes. Flooding appears to be an increasingly frequent event.	The causes of flooding: physical – prolonged rain, heavy rain, snowmelt, relief; and human – deforestation, building construction. The frequency and location of flood events – in the UK in the last 20 years.			
The effects of and responses to floods vary between areas of contrasting levels of wealth.	A case study of flooding in a rich part of the world and one from a poorer area – the different effects of and responses to flooding.			
There is discussion about the costs and benefits of hard and soft engineering and debate about which is the better option.	Hard engineering strategies – dams and reservoirs, straightening. Soft engineering – flood warnings, preparation, flood plain zoning, ‘do nothing’. The costs and benefits of these.			
Rivers are managed to provide a water supply. There are a variety of issues resulting from this.	The UK – increasing demand for water; areas of deficit and areas of surplus; the need for transfer. A case study of a dam/reservoir to consider resulting economic, social and environmental issues and the need for sustainable supplies.			