

Outstanding Work in Geography

Date: 28/03/2025

LOWLY COURSE

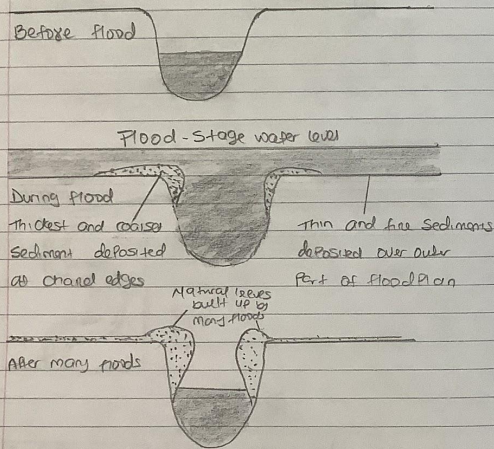
Flood Plains are made up of layers of sediment that are being deposited over time by a series of floods due to increase friction during flood, flow slows and deposited materials.

As meanders cut across the flood plain they widen it.

After each flood, the flood plain is left a little higher up due to the build up of sediment.

composed of gravel, stone and Alluvium

Alluvium - silt / sediment carried by river and deposited

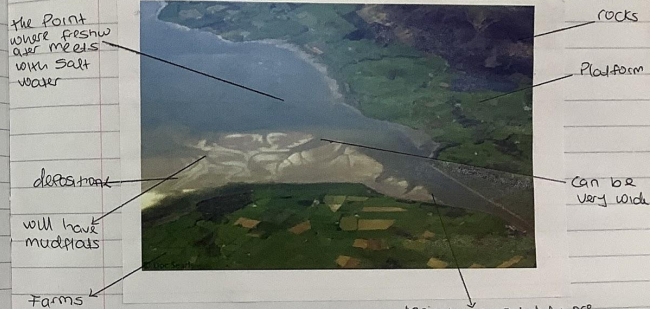


Leaves are found in the lower river section in order for them to form the river must first flood when the river floods the water leaves the river channel, the water therefore loses energy as a result deposition occurs, the heavier sediment are deposited first nearer the river bank, the lighter sediment are carried further away.

Leaves increase the height of the river banks and therefore act to prevent flooding in future however, if the river does flood, leaves often makes the situation worse, this is because the water cannot return to the channel over the high river bank.

Leaves can only form where a river carries sediment like mud and silt, this is why they form in the middle and section (lower) as the water has enough energy to transport sediment in the channel.

Characteristics of an estuary



An estuary is the tidal part of a river - where the channel widens as it reaches the sea

Estuary Reformation

- 1) As sea level rise (e.g. after ice ages) low lying valley sides ~~at~~ lower side of rivers were flooding creating estuaries (e.g. the Severn estuary)
- 2) Where fresh and salt water meet and during a rising tide the river's velocity falls and sediment is deposited. This forms extensive mudflats in sheltered areas (exposed at low tides)
- 3) Over time these may develop into salt marshes

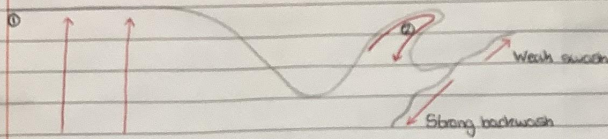
GCSE Geography:
river features.

Year 10 exam skills.

Destructive waves

① High waves in proportion to length

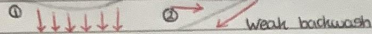
② A tall wave break with great force



Constructive waves

① low waves in proportion to length

② Strong Swash



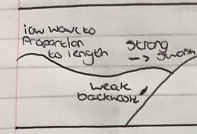
Exam Question

Justify which type of wave has a bigger impact on coastlines (6 marks)

BUG car D positive/negative

The type of wave that has a bigger impact on coastlines are destructive waves, I believe this because destructive waves (take sediment off the beaches) which can lead to (cliff erosion) that can affect homes and businesses such as Hallbeck hall compared to constructive waves that bring sediment up to the beaches. Destructive waves also have a very strong backwash that can sweep things and even people into the ocean. Destructive waves have a bigger impact on coastlines because they are larger in height than constructive waves due to being created from powerful winds. This causes erosion due to it pulling sand and shingle down the beach. By destructive waves having a strong backwash, this means they are removing the material on the coastlines and that will eventually destroy the land around.

- Deposit beach material
- Forms in calm conditions with light winds
- Waves are long and not very high.
- Swash is stronger than backwash
- Have a frequency of 6-9 per minute



construction or destruction

positive/negative

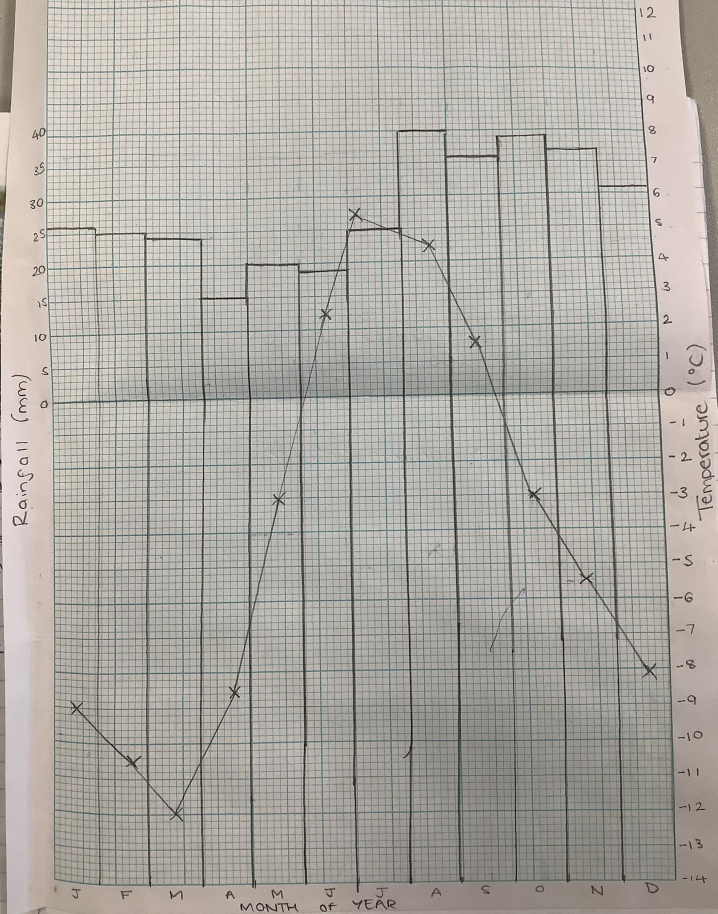
Justify which type of wave has a bigger impact on a coastline (6 marks)

Constructive waves would have an impact on a coastline as it (deposits beach material) rather than taking away from it so its making the beach larger and adding to it. Destructive waves (removes the beach) material and takes it away so over time the beach will get smaller. The one with a bigger impact on a coastline would be the destructive one as it takes away land.

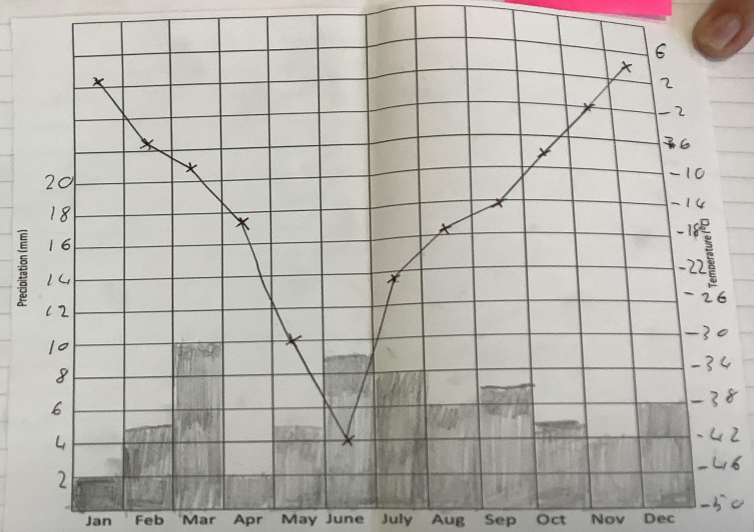
Constructive and destructive waves can both shape the coastline in different ways. Destructive waves have a bigger impact on a coastline. This is because they are large in height than constructive due to being created from powerful winds and storm conditions. They are also very frequent so hit against a coastline and affect it significantly. This is due to the very strong backwash.

Students deconstruct the exam questions and evaluate how well they have done. They then make improvements in red pen.

Climate graph showing temperature and rainfall of a cold environment



Introduction to Antarctica



	J	F	M	A	M	J	J	A	S	O	N	D
Temp.	3	-5	-12	-19	-30	-42	-23	-17	-15	-8	-2	4
Rainfall	2	5	10	2	5	9	8	6	7	5	4	6

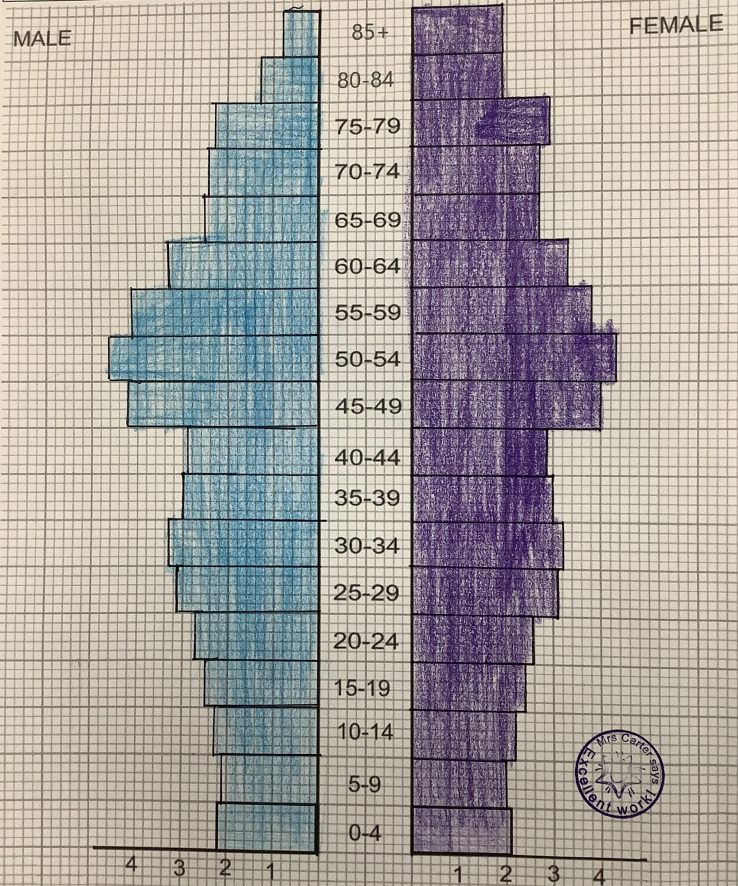
Climate graphs:
Year 10 (left) and year 8 (right).

Title

GERMANY'S POPULATION Structure

MALE

FEMALE



Population pyramids

Wednesday 12th February 2025

Revision Lesson

Water Key Words

Condensation - Water turns from a liquid to gas

Precipitation - Water falls from clouds to the earth.

Percolation - Water filtering through the ground

Evaporation - Water turning from a liquid to a gas

Transpiration - Plants 'sweat' water out through aerial parts.

Watershed - The boundary between two drainage basins.

Confluence - Where two rivers meet

Source - Where a river starts

Mouth - Where a river ends

Tributary - A smaller river that merges with a larger river

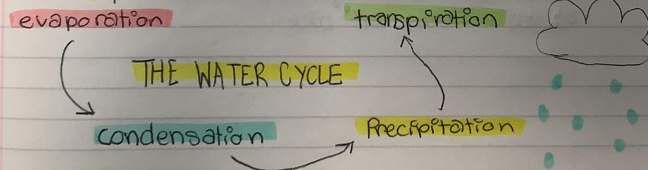
Meander - A bend/curve in the river

Ox-bow lake - A horseshoe shaped lake

Erosion - The wearing away of rock

Deposition - The putting down of material

Water = up + down



Physical	Human
- rainfall	- deforestation
- heavy runoff can't absorb.	- urbanisation
- forecast	- more drains

Cause of Flooding		
Cause	Description	Physical or Human Cause
Prolonged rainfall	Soil becomes saturated after prolonged rainfall. This leads to an increase in surface run-off as rainfall can no longer infiltrate the soil. This leads to more water entering the river channel, increasing flooding.	Physical
Heavy Rainfall	Heavy rainfall can result in water arriving too quickly to infiltrate the soil. This increases surface run-off, leading to water to reach the river channel quicker, resulting in greater risk of flooding.	Physical
Geology	Impermeable surfaces such as clay and granite do not allow infiltration, leading to greater surface run-off. The risk of flooding increases as the water reaches the river.	Physical
Relief	Water can move swiftly downhill in regions with steep terrain, such as mountains. The steeper the slope, the more rapid the water flows, increasing floods.	Physical
Building / Land use	Urban development affects water movement and non-absorbent surfaces increase the risk of flooding.	Human
Deforestation	Vegetation helps slow down flooding by absorbing the water. Without them, more water flows to the river.	Human

Flood Management Methods	
Technique	Description (include some advantages and disadvantages)
Dams and Reservoirs	Stop floods & store water for drinking. Cost a lot to build and can harm animals and plants.
River Straightening	Makes rivers straighter but can cause flooding further downstream and harm wildlife.
Flood Plain Zoning	Planting protects houses and keeps people safe but it can be hard to do in areas where people already live.
Afforestation	Planting trees near rivers to slow down water, but large areas are needed for them to grow.
Flood Warnings and Preparation	Let people know when a flood is coming, but it doesn't stop the flood itself.

Year 8: rivers.