Your notes

KS3 Geography: revision notes

Coasts

Contents

1. Waves
2. Erosion and landforms
3. Longshore drift and deposition
4. Managing the coast
5. Key terms
6. Quick questions
7. What to do next

Waves

- Waves are made by the wind blowing over the sea. The **fetch** is the distance of open water the wind blows over: a longer **fetch** makes bigger waves.
- **Constructive waves** are low and gentle, with a strong **swash** and weak **backwash**, so they build up beaches.
- **Destructive waves** are high and frequent, with a weak **swash** and strong **backwash**, so they erode beaches.

Erosion and landforms

- The sea erodes by hydraulic action, abrasion, attrition and solution. Weathering and mass movement (such as rockfalls and slumping) also shape cliffs.
- **Headlands** and bays form where bands of hard and soft rock meet the coast: the soft rock is eroded into bays, leaving hard-rock **headlands**.
- On a **headland**, a crack is eroded into a cave, the cave becomes an arch, the arch collapses to leave a **stack**, and the **stack** is eroded into a stump.
- As cliffs retreat, a flat wave-cut platform is left at their base.

Longshore drift and deposition

- **Longshore drift**: waves approach the beach at an angle, following the prevailing wind. The **swash** carries sediment up the beach at that angle, and the **backwash** carries it straight down, so it zigzags along the coast.
- Deposition forms beaches, **spits** (long ridges of sand or shingle stretching out from the coast), bars and tombolos.

Managing the coast

- Hard engineering: sea walls, **groynes** (which trap sediment moved by **longshore drift**), rock armour and gabions. They are effective but expensive, and can cause erosion further along the coast.
- Soft engineering: beach nourishment (adding sand), dune regeneration and **managed retreat** (letting low-value land flood).
- Guernsey has high cliffs on its south coast and lower bays on the west coast, where sea walls help protect the land from storms.

Key terms

Fetch	The distance of open water the wind blows over.
Swash	Water moving up a beach after a wave breaks.
Backwash	Water flowing back down a beach.
Constructive wave	A gentle wave that builds up beaches.
Destructive wave	A powerful wave that erodes beaches.
Headland	Land that sticks out into the sea.
Bay	A curved inlet of the sea between headlands.
Stack	A pillar of rock separated from a headland.
Longshore drift	The zigzag movement of sediment along a coast.
Spit	A long ridge of sand or shingle stretching out from the coast.
Groyne	A wooden or rock barrier that traps sediment on a beach.
Managed retreat	Letting the sea flood low-value land in a controlled way.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What is fetch?
2. What do constructive waves do?
3. What are destructive waves like?
4. What is the order of erosion on a headland?
5. Why do headlands and bays form?
6. What is longshore drift?
7. What is a spit?
8. What does a groyne do?

Answers

1. The distance of open water the wind blows over
2. Build up beaches, because their swash is stronger than their backwash

Your notes

3. High and frequent, with a strong backwash that erodes beaches
4. Cave, arch, stack, stump
5. Hard and soft rocks are eroded at different rates
6. The zigzag movement of sediment along a coast by waves
7. A long ridge of sand or shingle stretching out from the coast
8. Traps sediment moved by longshore drift, keeping the beach wide

What to do next

Practise 13 questions on this topic

Try 4 exam questions, with mark schemes

Read the lesson, one step at a time

Free revision for GCSE and KS3 at lycolearn.co.uk. Some notes are for one exam board only, and say so in brackets.

Your notes