

Coastal Explorers: A Geography Challenge with Finn the Dolphin

Learning objective: To understand the physical processes of coastal erosion, deposition, and the formation of coastal features.

Read each flashcard carefully. Use the front to test your knowledge of coastal geography, then check the back to confirm your answer. If you are aiming for Greater Depth, try to explain the process in your own words.

What is coastal erosion?

The wearing away of land and the removal of beach or dune sediments by wave action, tidal currents, or drainage.

What is deposition?

The process where waves lose energy and drop the sediment, sand, or shingle they have been carrying.

Explain the process of Longshore Drift.

The movement of material along a coastline in a zigzag pattern due to the direction of the prevailing wind and waves.

What is a headland?

A high area of land with a steep drop, usually made of resistant rock, that juts out into the sea.

How is a sea arch formed?

When waves erode through a headland, specifically targeting cracks and weaknesses until a tunnel is created through the rock.

Define a 'bay'.

A recessed area of the coastline where the waves have eroded softer rock, situated between two headlands.

What is a sea stack?

A vertical column of rock in the sea near a coast, formed when an arch collapses due to gravity and continued erosion.

Explain 'Hydraulic Action'.

The force of waves crashing against a cliff face, trapping air in cracks and causing the rock to break apart.

What is a spit?

A long, narrow ridge of sand or shingle that extends from the land into the sea, formed by longshore drift.

Define 'Attrition'.

When rocks and pebbles carried by waves hit against each other, becoming smaller, smoother, and rounder over time.

Why are some rocks more resistant to erosion than others?

Resistant rocks like granite have a tighter, harder structure compared to softer rocks like clay or chalk, which erode more easily.

How might a coastline change over 100 years?

Through constant erosion and deposition, headlands may become isolated stacks, and bays may be filled with sediment to create new beaches.