

Edexcel Geography A-level

Coastal Landscapes & Change

Definition Flashcards

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Abrasion



Abrasion

A form of erosion where loose material 'sandpapers' the walls and floors of the river, cliff or glacier. Also known as attrition.



Backshore



Backshore

The upper beach closest to the land,
including any cliffs or sand dunes



Bar



Bar

A section of sand caused by deposition. They join two sides of a bay together, creating a lagoon behind the bar.



Beach Morphology



Beach Morphology

The surface shape of the beach



Beach Nourishment



Beach Morphology

The addition of sand and sediment to an eroding beach by humans. The new material will be eroded by the sea which saves the cliffs or sand dunes from erosion and recession.



Coastal Recession



Coastal Recession

The retreat of a coastline due to erosion, sea-level rise or submergence.



Concordant Coast



Concordant Coast

A coastline where bands of alternate geology run parallel to the coast.



Corrasion



Corrasion

A form of mechanical erosion where material and sediment in the sea is flung at the cliff-face as waves break against it, this breaks up the rocks making up the cliff.



Corrosion



Corrosion

The weak acid in seawater and some types of seaweed react with particular rock minerals, causing erosion and weakening.



Dalmatian Coast



Dalmatian Coast

A concordant coastline with several river valleys running perpendicular to the coast. They become flooded to produce parallel long islands and long inlets



DEFRA's 1:1 Cost-Benefit Analysis



DEFRA's 1:1 Cost-Benefit Analysis

The evaluation of a coastal town's economic value compared to the cost of the management required.



Discordant Coast



Discordant Coast

A coastline where bands of alternate geology run perpendicular to the shore



Dynamic Equilibrium



Dynamic Equilibrium

A system where its inputs and outputs are in balance. Short term changes can affect this balance, negative feedback loops help to take the system back to dynamic equilibrium.



Emergent Coast



Emergent Coast

A coastline that is advancing relative to the sea level at the time.



Estuary



Estuary

The point at where the river meets an ocean, often muddy or silty. Sometimes estuaries become exposed at low tide or hazardous to traverse in a boat due to sandbanks.



Eustatic



Eustatic

Global changes to sea levels.



Fetch



Fetch

The length of water over which the wind has travelled.



Fjord



Fjord

Long narrow inlet of sea water which is between steep mountains. They are created when sea levels rise relative to the land, flooding coastal glacial valleys.



Foreshore



Foreshore

The lower part of the beach covered twice a day at high tide (the part of the beach that receives the most regular wave action).



Freeze Thaw



Freeze Thaw

A form of physical sub-aerial weathering where water freezes in the cracks of a rock, expands and enlarges the crack, therefore weakens the rock.



Geology



Geology

The structure and arrangement of a rock.



Glacial Erosion



Glacial Erosion

The removal of loose material by glacier ice, involving plucking, abrasion, crushing and basal meltwater.
(necessary in the formation of Fjords)



Grading



Grading

The layering of sediments based on their size



Groyne



Groyne

A form of hard-engineering. Low-lying concrete or wooden walls, constructed perpendicular to the seafront and run out to sea. They encourage the trapping of sediment to reduce erosion caused by longshore drift or by winds.



Hard Management



Hard Management

The use of concrete structures to reduce or halt the recession of a coastline. Includes: Groynes, Sea Walls, Rock Armour.



High-energy environment



High-energy environment

A coast where wave action is predominantly large destructive waves, causing much erosion.



Hydraulic Action



Hydraulic Action

The pressure of compressed air forced into cracks in a rock face will cause the rock to weaken and break apart.



Integrated Coastal Zone Management (ICZM)



Integrated Coastal Zone Management (ICZM)

Large sections of coastline (often sediment cells) are managed with one integrated strategy and management occurs between different political boundaries. It usually follows a holistic approach and takes into consideration different players.



Impermeable



Impermeable

A rock that does not allow rainwater to pass through.



Isostatic



Isostatic

A change in local coastline or land height relative to the sea level.



Littoral Cell



Littoral Cell

A section of the coast, within which involves much sediment movement. A littoral cell is not a closed system.



Longshore Drift



Longshore Drift

The transportation of sediment along a beach.
Longshore Drift is determined by the direction of the prevailing wind.



Low-energy Environment



Low-energy Environment

A coast where wave action is predominantly small constructive waves. Deposition usually takes place leading to beach accretion.



Mass Movement



Mass Movement

Where there is a large downhill movement of material usually from a cliff-face. Here, the rock is often weak due to erosion and the movement is caused by gravity.



Nearshore



Nearshore

The area before the shore where the wave steepness and breaks before they reach the shore and then reform before breaking on the beach. It extends from the low-tide zone and then out to sea.



Permeable



Permeable

A rock that allows rainwater to pass through it.



Plant succession



Plant succession

Change to a plant community due to growing conditions adapting (eg. sand dunes and salt marshes)



Ria



Ria

Narrow winding inlet which is deepest at the mouth, formed when sea levels rise causing coastal valleys to flood.



Rock Armour



Rock Armour

Large rocks or concrete blocks, used as barricades to reduce marine erosion at the base of cliffs.



Saltation



Saltation

A form of transportation where smaller sediment bounces along the sea bed pushed by currents. This sediment is too heavy to be picked up by the flow of the water.



Salt Marsh



Salt Marsh

In sheltered bays or behind spits, salt and minerals will build up. Vegetation may establish, further stabilising the marsh.



Sand Dune



Sand Dune

A depositional landform, where sand and sediment build up around driftwood and accumulate over time.



Sea Wall



Sea Wall

A hard-management coastal defense, where a concrete wall is built parallel to the seafront, to redirect the energy of waves away from sensitive cliffs or the edge of a coastal town.



Sediment Cell



Sediment Cell

Sections of the coast bordered by prominent headlands. Within these sections, the movement of sediment is almost contained and the flows of sediment should act in dynamic equilibrium



Sediment Budget



Sediment Budget

Use data of inputs, outputs, stores and transfers to assess the gains and losses of sediment within a sediment cell.



Shoreline Management Plan (SMP)I



Shoreline Management Plan (SMP)

Identifies all of the activities, both natural and human, which occur within the coastline area of each sediment cell. They use this to recommend a combination of four actions for each stretch of that coastline: Hold the Line, Advance the Line, Managed Realignment and No Active Intervention.



Soft Management



Soft Management

The use of natural materials and environmentally sustainable approaches to reduce coastal recession. Includes: Beach Nourishment, Managed Retreat, Sand Dune Encouragement.



Spit



Spitl

A long depositional landform, formed from sand and shingle.



Subaerial Processes



Subaerial Processes

The combination of mass movement and weathering that affects the coastal land above sea.



Submergent Coast



Submergent Coast

A coast that is sinking relative to the sea level of the time.



Till



Till

Deposits of angular rock fragments in a finer medium.



Tombola



Tombola

A spit joining mainland to an island.



Wave Quarrying



Wave Quarrying

When air is trapped and compressed against a cliff which causes rock fragments to break off the cliff over time.

