

Edexcel A Geography GCSE

Topic 1A: Coastal Landscapes and Processes

Glossary of Definitions

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Abrasion - A form of erosion where loose material, pebbles and sediment 'sandpaper' the walls and floors of a river, cliff or glacier.

Attrition - Rocks and pebbles continuously hit against each other, causing them to break into smaller rocks until they become sediment.

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

Beach Nourishment - 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.

Biological Weathering - Rocks are broken apart by growing vegetation and roots, microbes, or chemical reactions from animal faeces. This erodes the rock face.

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

Corrasion - A form of mechanical erosion where material and sediment in the sea is flung at the cliff-face. As the waves break against it, the rock making up the cliff-face is broken.

Chemical Weathering - The weak acid in rainwater dissolves chemical compounds in the rock.

Discordant Coast - A coastline where bands of alternate geology run perpendicular to the shore.

Fetch - The length of water over which the wind has travelled.

Freeze Thaw - A form of physical sub-aerial weathering where water freezes in the cracks of a rock, expands and enlarges the crack. This weakens the rock overtime leaving it more open to erosion.

Geology - The physical structure and arrangement of a rock.

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

Highlands - An area of land that is at a high elevation and tends to have a larger relief.

Hydraulic Action - The pressure of compressed air forced into the cracks of a rock face causes the rock to weaken and break apart.

Igneous Rock - Rock that has formed from volcanic activity, often cooled magma on the Earth's surface.

Impermeable - A rock that does not allow water to pass through it.



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

Lowlands - An area of land that has a small relief, so tends to be flat and at a low elevation.

Mass Movement - 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.

Mechanical Weathering - Sometimes called physical weathering, this is the breakdown of rocks due to forces (such as freeze-thaw), not chemical reactions.

Metamorphic Rock - Rock formed under intense pressure and heat, often close to tectonic plate boundaries.

Permeable - A rock that allows water to pass through it.

Relief - The difference in the height of land for a particular region. A large relief means a region has a large difference between the lowest and highest points.

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

Saltation - A form of sediment transportation where smaller rocks/pebbles are pushed along the seabed by currents, because they are too heavy to be carried in the flow of the water.

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

Sand Dune - A depositional landform, where sand and sediment build up around driftwood, accumulating into a 'sand-hill' over time.

Sea Wall - A hard-management coastal defense. A concrete wall is built parallel to the sea front to redirect the energy of waves away from sensitive cliffs or the edge of a coastal town.

Sedimentary Rock - Formed from the broken remains of sediment and other rocks that have compressed and cemented together over thousands of years.

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

Solution - Slightly acidic water dissolves chemicals from a rock face (usually limestone) and transports these dissolved materials and chemical compounds.

Suspension - Small rocks that are light enough to float are carried in the water, rather than along the bed.

Spit - A long depositional landform, formed from sand and shingle.

Traction - Large rocks and boulders are rolled along the bed of the river or sea.

