Grange Park Primary School Year 5 Summer 1 Geography

What a Wonderful World: The Environment and Coastal Erosion

Physical Features

Headland and bay	Formed when the rocks of a discordant coastline erode at different speeds. The less resistant rock erodes faster forming a bay while the more resistant rock is left to form a headland.
Cave	Hydraulic power and abrasion enlarges a crack in the headland rock to form a cave.
Arch	Formed when a cave continues to erode and break through the headland.
Stack	When erosion weakens the rock supporting an arch, it collapses forming a stack.
Stump	Continued erosion of a stack followed by collapse, leaves a stump.
Sand dune	Wind carries sand deposited by longshore drift up the beach.
Spit	A long, sandy ridge formed when sediment carried by longshore drift is deposited at a sharp bend in the coastline.
longshore drift	The zig-zag movement of sediment caused by waves travelling in the same direction as the prevailing wind which hit the coast at an angle.

Key Places

Walton on the Naze	An example of how hard and soft engineering have been used to protect the coastline.
Chesil Beach	An example of a bar. Sediment, deposited over time to form a spit, has continued to join to the Isle of Portland. Behind the spit there is The Fleet, a lagoon.
Durdle Door	A fine example of a sea arch and part of the UNESCO world heritage coastline of Dorset.
Old Harry Rocks	Three chalk formations named as Old Harry, Old Harry's Wife, and No-Man's Land – which stands slightly further out to sea than the other two.

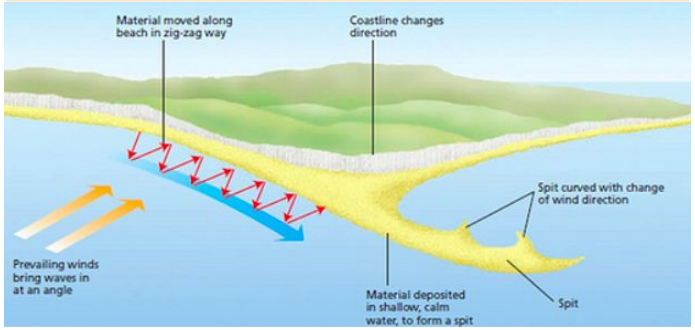
Environmental concerns

Coastal areas are vulnerable to climate change because, in addition to changes in temperature, precipitation and more frequent flooding, they will be affected by rises in sea level, wave heights and accelerated coastal erosion.

Human features can also contribute to erosion on the coast. Buildings on cliff tops can increase the instability of cliffs, resulting in land slips.

Deforestation and the destruction of the Amazon Rainforest, along with CO2 emissions affect countries and humans across the planet in different ways.

The conflict between the human interest of short term needs versus the long term needs gains of protecting the environment.



Key Vocabulary

hydraulic action	Occurs when waves striking a cliff face compress air in cracks on the cliff face.
abrasion	Erosion caused by the action of pebbles or stones, wave energy or wind.
attrition	Caused when saturated soil and rock moves over the rock below.
solution	Sea water dissolves the rock causing erosion.
mechanical weathering	The pressure of continual expansion and contraction of rocks which causes them to break apart.
constructive waves	Waves which deposit more material than they erode.
sea wall	A wall or embankment constructed to prevent the sea from eroding an area of land
groynes	Barriers constructed at 90 degree angles to the beach to prevent longshore drift.
rock armour	Broken stones used to stabilise an easily eroded bank.
erosion	The process of earth being worn away by wind or water.
climate change and global warming	The change of climate patterns as a result of increasing levels of carbon dioxide in the atmosphere.
displacement	The movement of people as a result of climate change.
emissions	The production of carbon dioxide released into the atmosphere.

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