Les Beaucamps High School - Geography Department
Knowledge Organiser - Year 8 Coasts

1. Key Terms

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Erode	The wearing away of rocks, soil and stones by waves, rivers, wind and glaciers.
Transport	The carrying of material by rivers, sea and glaciers.
Deposit	To drop material that have been eroded.
Longshore Drift	How sand and other materials is moved parallel to the coast.
Beach	An area of sand or small pebbles deposited by waves
Bay	A smooth curve of coast between two headlands.
Headland	Land that juts out into the sea.
Cave	An area of cliff that has been eroded.
Arch	The curved structure left behind when a cave is eroded through a headland
Stack	A pillar left behind when an arch collapses.
Stump	The remains of an eroded stack.
Wave-cut platform	The flat rocky area left by the action of waves.
Spit	A strip of sand or shingle in the sea.
Salt Marsh	A low-laying marshy area by the sea, with salty water from the tides.
Constructive wave	A wave which deposits material on a coast line.
Destructive Wave	A wave that removes material from a coast line.
Coastal Management	The way that the coastline is managed to protect the land behind it.

2. What causes waves

They are formed by the wind **dragging** along the surface of the water. The length of water the wind blows over is called the **fetch.**

The size of waves is determined by:
- The **strength** of the wind
- How long it has blown for
- The length of the **fetch**

3. The Types of wave
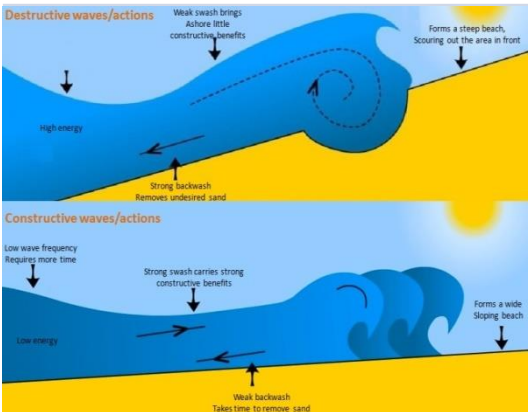
4. The work of waves

Waves shape our coastline 24 hours a day! It is rather like a digger! It takes things away (**erosion**), it moves material (**transportation**) and it puts it down (**deposition**)

Erosion – this is when the waves wear away the coast.
Transportation – this is when the sea moves the **eroded** material.
Deposition – this is when the eroded and weathered material it put down in more sheltered parts of the coastline.

The Types of Erosion
Hydraulic Action – The force of water gets into cracks in the rocks and forces them apart.
Solution – The slightly acid nature of sea water dissolves the rocks.
Abrasion - this is the sand and rocks wearing away and the rocks, rather like sandpaper.
Attrition – rocks bashing together and making them smaller

5. Longshore Drift

This is the movement of material along a coastline. This happens when waves break on a shoreline at an angle.
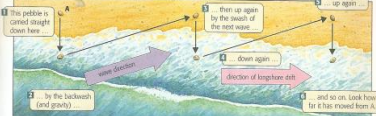
8. Coastal Management

People can be under threat by the sea and we need to defend ourselves from it. For us in Guernsey much of our coastline is protected by a variety of different types of coastal defence.

Sea Walls – these keep the sea out. They are often curved to reflect the waves away.

Rock Armour (rip rap) – these are big rocks (sometimes in a cage). They soak up the waves energy. They can be used to protect sea walls and cliffs.

Artificial reef – this is built out to see and is designed to soak up some of the waves energy before it reaches the coast.

Revetments – These are rather like fences. They are designed for the waves to batter them rather than the coastline.

Groynes – these trap sand and stop it being carried away. Sand also absorbs some of the waves energy.
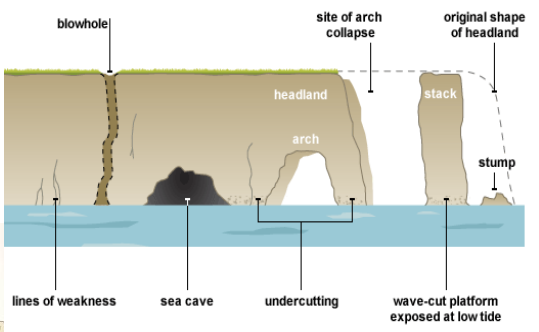
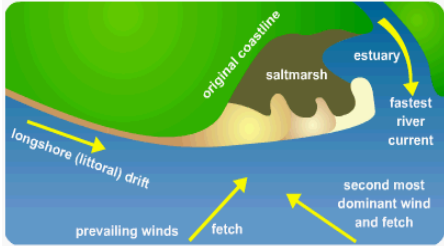**Beach nourishment** – this is when extra sand is added to the beach to build it up.

Managed retreat – this is

6. Coastal Landforms – Headlands (erosional)

7. Coastal Features Spits (Depositional)

Spits are formed by the deposition of material that have been eroded by the sea. The process of **longshore drift** helps to create

9. The Challenges of Managing the Coast

Coastal areas are very difficult to manage as it is all connected. This means when you do something to one area it will have an impact somewhere else.

The key issues with coastal management
- Coastal defences are very expensive.
- They do not last forever and can get worn and washed away.
- The defences can do harm further along the coast. Such as stopping the movement of sand along the coastline.
- The climate is changing and sea levels are expected to rise, storms may become worse and some of the defences that we have may fail.

Coastal Management is important because…
- People and businesses are by the coast.
- We need to protect special places, such as those of historical importance.
- We don't protect all places.