# YEAR 4: GEOGRAPHY SUMMER 2: POLLUTION SOLUTION

#### The UK Coastal Landscape

As an island, the UK has 31,368km of coastline with a rich variety of habitats. The shape of the coast has changed dramatically over time, with more settlements being built and sea levels rising.

Holkham Sand Dunes

Stiffkey Saltmarsh

Cley Mudflats



### **Depositional Landforms**

Both beaches and sand dunes are examples of depositional landforms; where material is deposited (left behind) to form a feature in the landscape. Beaches can be steep or shallow depending on the type of **sediment** and the energy of the waves. Wind energy and tidal (wave) energy work together to create these landforms.

## **Erosional Landforms**

Erosional landforms are created through the processes of weathering and erosion.



When a coastline is made up of different rock types, it is called a **discordant** coastline. Here, the rocks **erode** at different speeds, creating **headlands** made of harder, stronger rock and **bays** made of weaker, softer rock.





Waves cause **erosion** at the foot of cliffs, causing a **wave-cut notch**. The rock above eventually collapses to form a wave-cut platform.

Cracks can still form in the stronger headland rock, eventually developing into caves, then arches, followed by stacks and finally stumps.

Did you know...? Scientists predict that the amount of ocean plastic will outweigh fish by 2050! Did you know...? 8,000,000 tonnes of plastic waste enters the ocean every year!

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Key Vocabulary	
Weathering	The process of breaking down rock
5	into sediment.
Erosion/Erode	The process of moving sediment.
Discordant	A coastline made of both hard and
	soft rock types.
Headland	A hard rock piece of land that
	sticks out into the sea.
Bay	A soft rock piece of land between
	headlands.
Wave-cut	A dent in the bottom part of a
notch	cliff caused by erosion.
Caves	A hole in the bottom of a cliff.
Arches	A hole in the bottom of a
	headland.
Stacks	A piece of rock left behind after
	an arch collapses.
Stumps	A piece of rock left behind after a
	stack erodes.
Sediment	Material formed by weathering.
Pollution	When harmful substances are
	introduced to an environment.
Currents	Water moving in a direction.
Biodegrade	Breaking down naturally.
Sustainable	Something that is able to be
	continued for a long time without
	causing harm to the environment.

## **Marine Plastic Pollution**

Marine plastic **pollution** comes from all over the world. Plastic has only existed for the last 70 years but it can take up to 500 years to **biodegrade**! Sea creatures, such as turtles, become trapped in plastic debris or eat the plastic waste having mistaken it for food. This causes them to become severely injured or die.



## Ocean Currents

The water in the oceans is constantly moving in patterns called **currents**. Some currents flow quickly whilst others move very slowly. The ocean currents move cold and warm water from one place to another but also move anything that floats in them, including plastic waste.

### **Pollution Solution**

It is possible to prevent plastic pollution by living a more sustainable lifestyle, for example re-using water bottles and choosing to buy fruit without packaging. We can clean up plastic pollution too by participating in beach clean ups and volunteering with organisations that look after coastal habitats.

