

Vocabulary

Key terms and definitions

Sediment	Material from the earth such as mud, sand, rocks, stones pebbles etc.
Deposition	The laying down of sediment .
Erosion	The wearing away of sediment .
Arete	The very steep edge of a mountain top
Freeze thaw weathering	Water enters cracks in the rock. When temperatures drop, the water freezes and expands causing the crack to widen. The ice melts and water makes its way deeper into the cracks.

Glacial erosion	Abrasion	Rocks trapped beneath glacier scratch & smooth underlying bedrock.
	Plucking	Meltwater beneath ice freezes & bonds pieces of loose bedrock to the glacier. As glacier moves forward, these loose pieces of rock are plucked (ripped) away from floor leaving a jagged surface.
Glacial transportation	Basal slip	Meltwater beneath glacier allows it to slide forward a few metres a year Rotational slip - a curved movement resulting in a corrie
	Glacier advance	The build up (accumulation) of snow is greater than the melting of ice (ablation)
	Glacier retreat	The melting of ice (ablation) is greater than the build up (accumulation)
	Rotational slip	A curved movement resulting in a corrie
	Bulldozing	rock debris is moved at the front of the glacier
Glacial deposition	Erratic	Rocks in the wrong place! Rocks are transported by glaciers, ice melts and then deposits them in a new place.
	Drumlin	An elongated, teardrop-shaped hills of rock, sand, and gravel that formed under moving glacier ice.
	Moraine	material left behind by a moving glacier. This material is usually soil and rock



Knowledge Organiser Year 7 Term 2

Identity and self: Distinctive UK landscapes

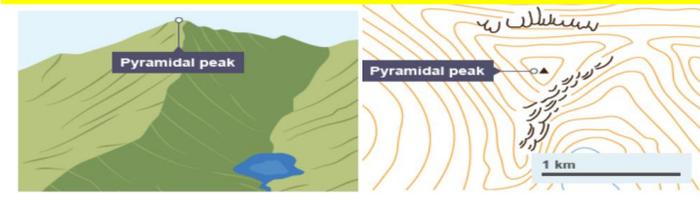
Last Ice Age in the UK



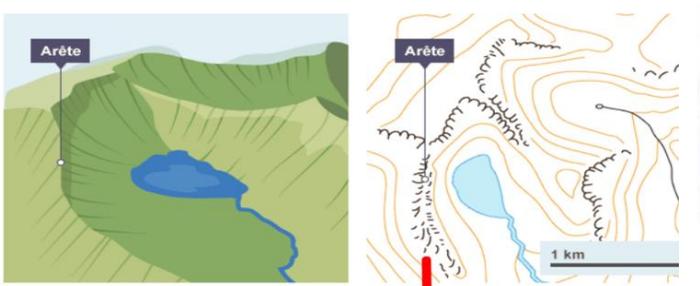
Glacial processes have shaped the UK's landscape.

- Vast ice sheets spread over the UK from the north to cover all of northern Wales & northern England.
- Glaciers flowed out of mountainous areas. Unglaciated areas in the south experienced frozen conditions (permafrost).

Aretes & Pyramidal Peaks



Several corries erode back to back into a mountain, a **pyramidal peak** is formed e.g. Matterhorn. Sharp edged mountain peak with three sides.

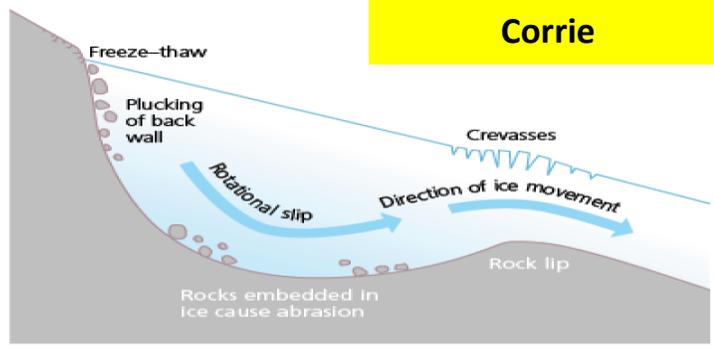


When two corries are eroded back to back the ridge (**arete**) in between them becomes narrower until it may only be a few metres across e.g. Striding Edge, Lake District.

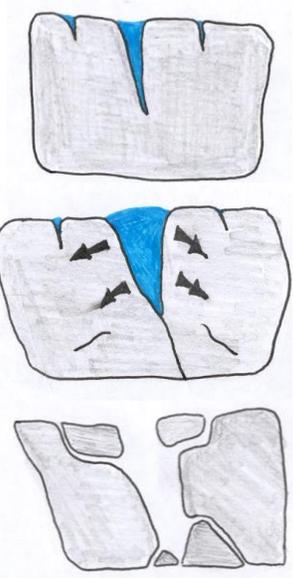
Land Use in Glaciated areas

Farming Soils are thin & infertile, slopes are steep and covered in rocky outcrops, harsh climates, high rainfall & snow	Sheep grazing is widespread with some crops for silage. Pockets of specialist farming e.g. deer (venison)
Quarrying Glaciated areas are made of tough rocks that can be quarried for a variety of purposes.	Roofing, decorative material. Lake District has 13 quarries. Some rock is used in road construction.
Tourism Provides thousands of jobs & contributes to the local economy through shops, hotels, restaurants, visitor attractions.	In the Lake District people are drawn for walking, hiking, cycling and nature walking.

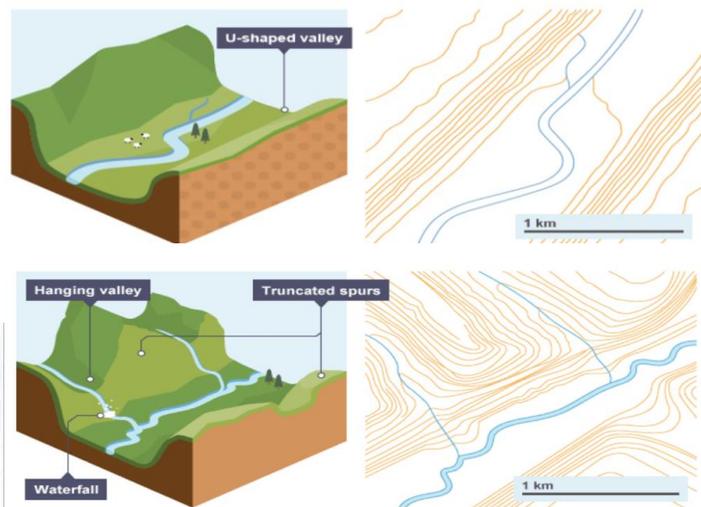
Corrie



Freeze thaw weathering



Glacial Landforms created by erosion



Vocabulary Key terms and definitions

Deposition	The laying down of material at the coast.
Erosion	The wearing away of material at the coast.
Hard engineering	Man-made structures to protect the coast from erosion.
Managed retreat	Allowing cliff erosion to occur as nature taking its course.
Soft engineering	Managing erosion using natural processes.
Transportation	The movement of material at the coast.

Coastal landforms - erosion	Headlands	Where more resistant rock (e.g. chalk) juts out into the sea.
	Bays	Where soft rock (e.g. clay) is eroded backwards quickly.
	Wave-cut platforms	A rocky, level shelf at or around sea level representing the base of old, retreated cliffs.
	Caves, arches, stacks and stumps	The process by which a headland is eroded and then starts to collapse into the sea.

Coastal landforms - deposition	Beaches	The zone of deposited material that extends from the low water line to the limit of storm waves. The beach or shore can be divided in the foreshore and the backshore.
	Sand dunes	Coastal sand hill above the high tide mark, shaped by wind action, covered with grasses and shrubs.
	Spits	A depositional landform formed when a finger of sediment extends from the shore out to sea, often at a river mouth. It usually has a curved end because of opposing winds and currents.
	Bar	Where a spit grows across a bay, a bar can eventually enclose the bay to create a lagoon. Bars can also form offshore due to the action of breaking waves.

Coastal management	Hard engineering	e.g. Sea wall, gabions, rock armour and Groynes.
	Soft engineering	e.g. Beach nourishment and profiling, dune regeneration.
	Managed retreat	Taking the decision not to protect the coastline by removing current defences and allowing flooding and erosion.



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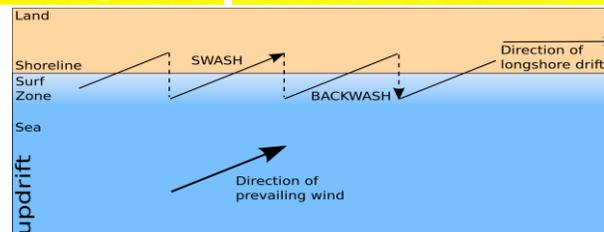
How do waves form?

Waves are created by wind blowing over the surface of the sea. As the wind blows over the sea, friction is created - producing a swell in the water.

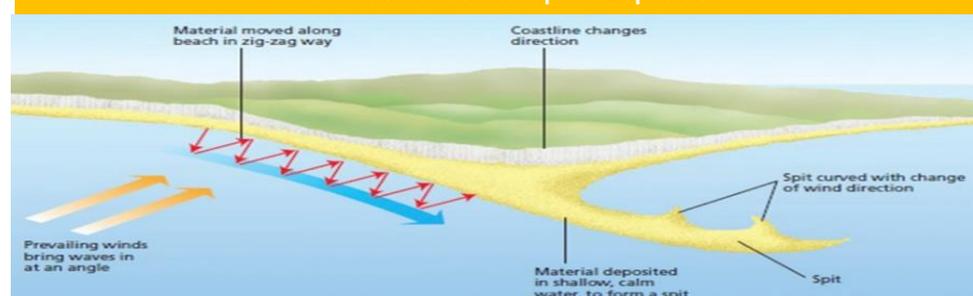
Size of waves	Types of Waves	
Affected by: <ul style="list-style-type: none"> Fetch how far the wave has travelled Strength of the wind. How long the wind has been blowing for. 	Constructive Waves	Destructive Waves
	This wave has a swash that is stronger than the backwash. This therefore builds up the coast.	This wave has a backwash that is stronger than the swash. This therefore erodes the coast.

Transportation – Longshore drift

Swash – the movement of material up the beach
Backwash – the movement of material back down the beach



Formation of Coastal Spits - Deposition



- 1) Swash moves up the beach at the angle of the prevailing wind.
- 2) Backwash moves down the beach at 90° to coastline, due to gravity.
- 3) Zigzag movement (Longshore Drift) transports material along beach.
- 4) Deposition causes beach to extend, until reaching a river estuary.
- 5) Change in prevailing wind direction forms a hook.
- 6) Sheltered area behind spit encourages deposition, salt marsh forms.

Formation of Bays and Headlands



- 1) Waves attack the coastline.
- 2) Softer rock is eroded by the sea quicker forming a bay, calm area causes deposition.
- 3) More resistant rock is left jutting out into the sea. This is a headland and is now more vulnerable to erosion.

Types of Erosion

The break down and transport of rocks – smooth, round and sorted.

Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolves rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart or scraped against the banks and bed of a river.
Hydraulic Action	Water enters cracks in the cliff, or river bank, air compresses, causing the crack to expand.

Types of Transportation

A natural process by which eroded material is carried/transported.

Solution	Minerals dissolve in water and are carried along.
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/sea bed by the force of the flowing water.

