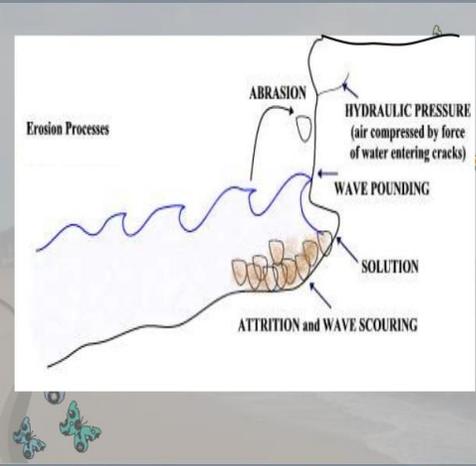


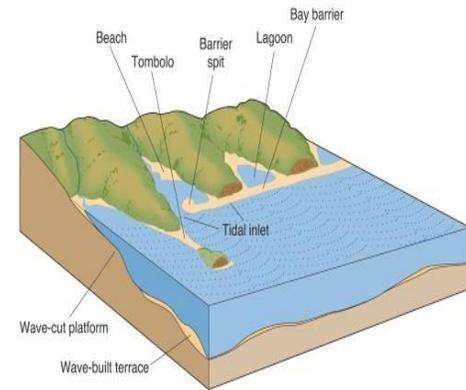
## Erosion

The wearing away of the land by a moving force, such as a breaking wave.



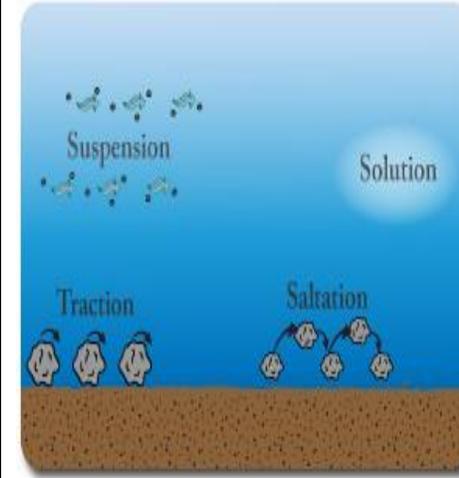
## Deposition

Occurs when material being transported by the sea is dropped due to the sea losing energy.



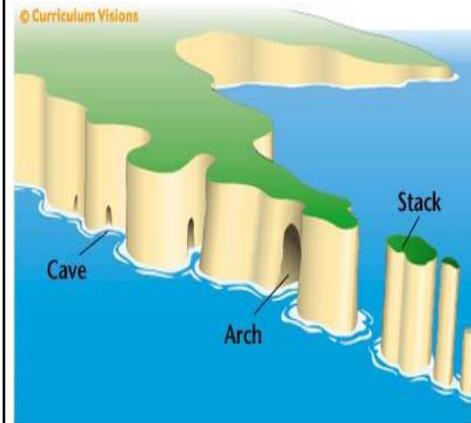
## Transportation

The movement of eroded material.



## Features of erosion

Coastal features made by erosion such as cliffs, bays, headlands etc



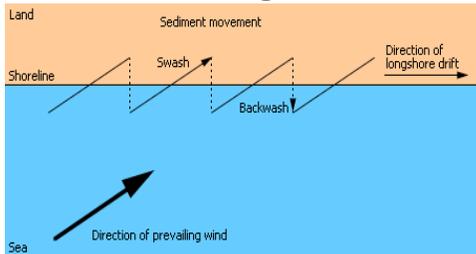
## Wave cut platform

A rocky, level shelf at or around sea level representing the base of old, retreated cliffs.



## Longshore drift

The zigzag movement of sediment along a shore caused by waves going up the beach at an angle and returning at right angles. This moves beach materials along the coast.



## Mass movement (slumping, sliding)

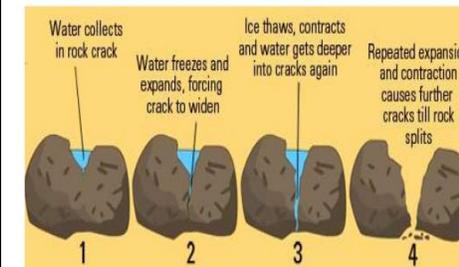
The downhill movement of weathered material under the force of gravity. The speed can vary considerably.



## Mechanical weathering

Weathering processes that cause break up of exposed rock for instance freeze thaw.

### FREEZE-THAW ACTION



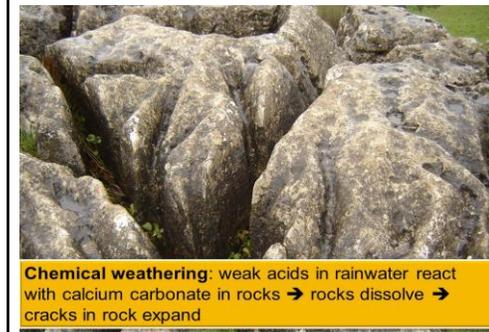
## Waves

Ripples caused by the transfer of energy from the wind to the surface of the sea. The largest waves are formed when winds are very strong, blow for lengthy periods and cross large expanses of water.



## Chemical weathering

The breaking down of rock caused by a chemical change, sea water can cause chemical weathering of cliffs.



**Chemical weathering:** weak acids in rainwater react with calcium carbonate in rocks → rocks dissolve → cracks in rock expand

## Soft engineering

Managing erosion by working with natural processes to help restore beaches and coastal ecosystems.

### Soft engineering strategies

Cliff regrading



Beach nourishment



Managed retreat



Geo-textiles



Drainage pipes



## Beach nourishment

The dumping of large amounts of sand or shingle. To increase the width of the beach.



## Dune regeneration

Planting marram grass to stabilise the dunes to strengthen the dunes and prevent coastal retreat.



## Managed retreat

Letting erosion happen and let nature take its course:



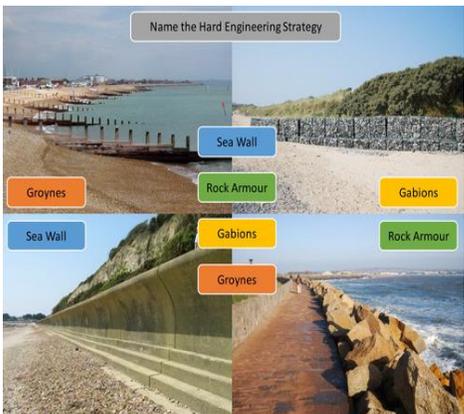
## Headlands and bays

Headlands lie between bays of less resistant rock where the land has been eroded back by the sea.



## Hard engineering

The use of concrete and large structures by engineers to defend land against natural erosion



## Gabion

Steel wire mesh filled with boulders used in coastal defences.



## Groyne

A wooden barrier built out into the sea to stop longshore drift and so cause the beach to grow to protect against erosion. However it increases erosion further down the coast.



## Rock armour ( Boulder barriers)

Large boulders dumped on the beach as part of the coastal defences.



## Sea wall

A concrete wall which prevents erosion of the coast by providing a barrier which reflects wave energy.

