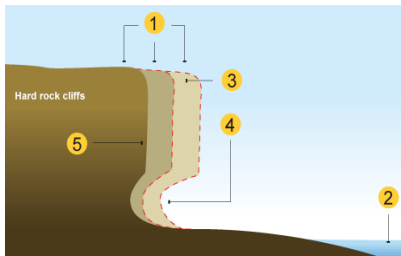


## Wave cut platform



1. Weather weakens the top of the cliff.
2. The sea attacks the base of the cliff forming a wave-cut notch.
3. The notch increases in size causing the cliff to collapse.
4. The backwash carries the rubble towards the sea forming a wave-cut platform.
5. The process repeats and the cliff continues to retreat.

## 4 types of erosion

**Hydraulic action.** Air may become trapped in joints and cracks on a cliff face. When a wave breaks, the trapped air is compressed which weakens the cliff and causes erosion.

**Abrasion.** Bits of rock and sand in waves grind down cliff surfaces like sandpaper.

**Attrition.** Waves smash rocks and pebbles on the shore into each other, and they break and become smoother.

**Solution.** Acids contained in sea water will dissolve some types of rock such as chalk or limestone.

## Dunes

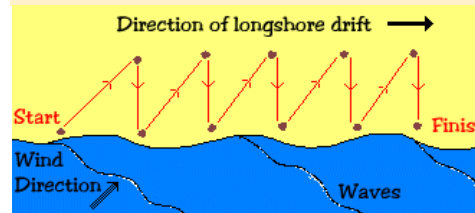


## Headland and bay formation

Headlands are formed when the sea attacks a section of coast with alternating bands of hard and soft rock. The bands of soft rock, such as sand and clay, erode more quickly than those of more resistant rock, such as chalk. This leaves a section of land jutting out into the sea called a **headland**. The areas where the soft rock has eroded away, next to the headland, are called **bays**

## Longshore drift

Waves can approach the coast at an **angle** because of the direction of the prevailing wind. The swash of the waves carries material up the beach at an angle. The backwash then flows back to the sea in a straight line at 90°. This movement of material is called **longshore drift** and occurs in a zigzag



## Spits

A spit is an extended stretch of beach material that projects out to sea and is joined to the mainland at one end. Spits are **formed** where the prevailing wind blows at an angle to the coastline, resulting in longshore drift.



# Coasts

## Knowledge organiser

### Hard engineering

Sea walls  
Groynes  
rip rap  
gabions  
Revetements

expensive; looks ugly..may affect tourism  
Effective; longer lasting

### Soft engineering

Sand dune stabilization  
beach replenishment  
managed retreat

Cheap; Have to do it regularly  
Environmentally good; loss of farmland

