

Waves:

Created by wind blowing over the sea. Size of waves depends on:

- Strength of wind
- Length of time blowing
- Fetch – distance wind has blown over the sea

Constructive Waves:

Low energy; calm; stronger swash than backwash – build beach up

Destructive Waves:

High energy; stormy; stronger backwash than swash – wash beach away

Processes – Erosion and Deposition:

Erosion:

Wearing away of the landscape (already weathered)

- Solution
- Attrition
- Hydraulic power
- Abrasion
- Corrasion

Deposition:

Sediment is dropped by the water in low energy environments such as

- Sheltered bays
- Saltmarshes (including behind spits)
- Sheltered estuaries

Processes – Weathering and Mass Movement:

Weathering:

Breakdown of rocks without them being moved.

- Mechanical (physical) – freeze-thaw
- Chemical – rain (weak acid) dissolves some rocks
- Biological – plant roots and animals weaken rocks

Mass Movement:

Weathered, loose rocks move downhill on the coast under gravity.

- Rockfall (dry)
- Landslide (dry)
- Mudflow (wet)
- Rotational slip (wet)

Processes – Transportation:

Sediment Transport

- Traction – large rocks rolled
- Saltation - bounce
- Suspension – fine particles carried by water
- Solution – dissolved load

Longshore Drift:

- 1) Prevailing winds hit beach at an angle
- 2) Waves break at an angle
- 3) Swash carries sediment diagonally up the beach
- 4) Backwash carries it straight back down
- 5) Overall movement of sediment is along the beach