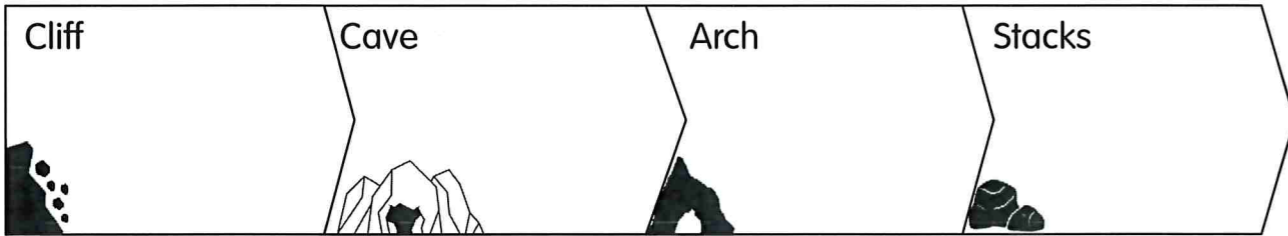


# COASTAL LANDSCAPE DEVELOPMENT

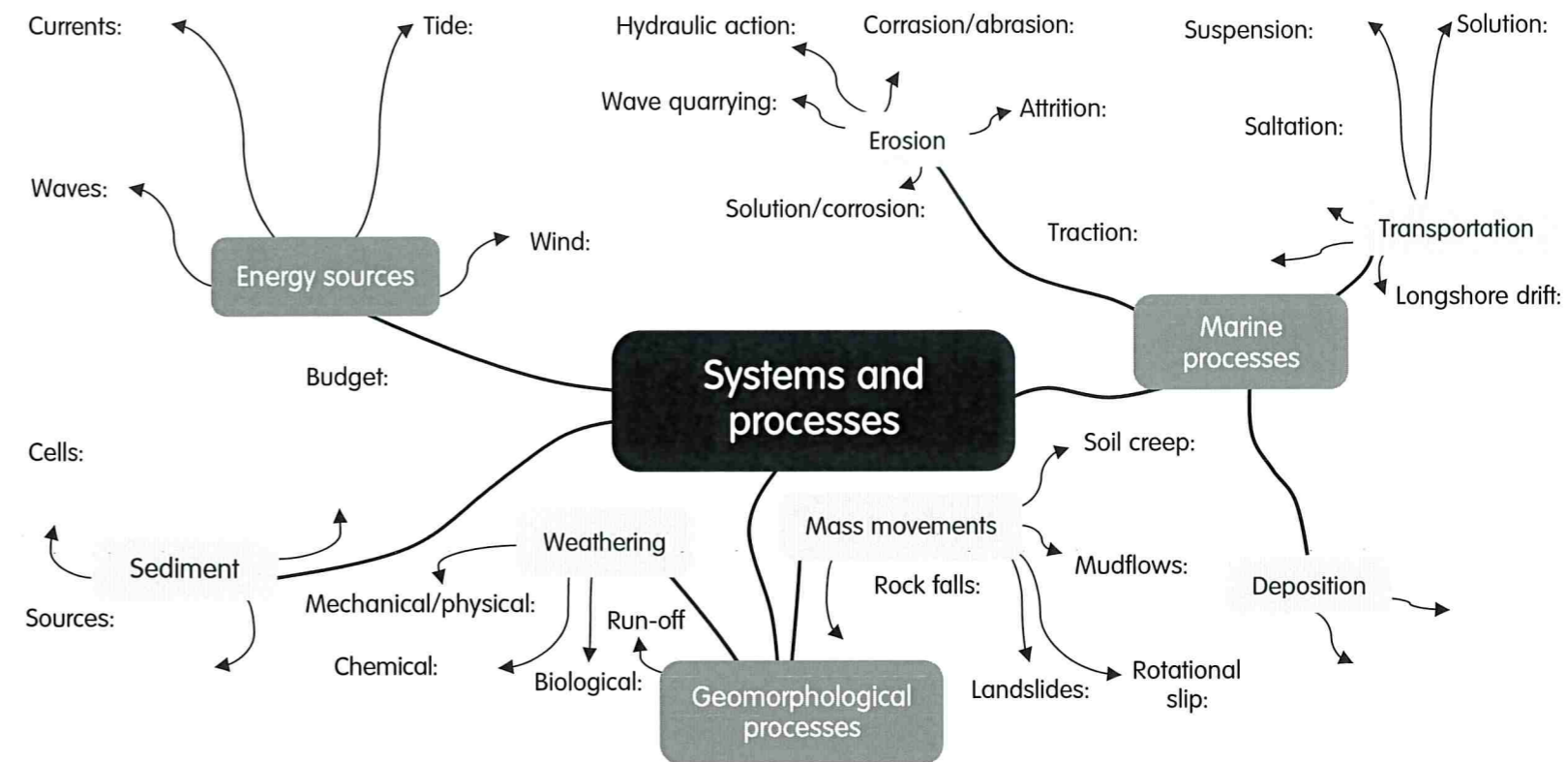
Headlands:  
Wave-cut platforms:

## Erosion

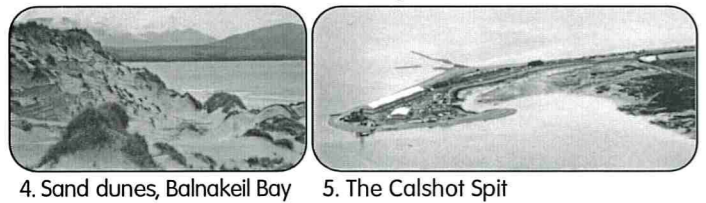
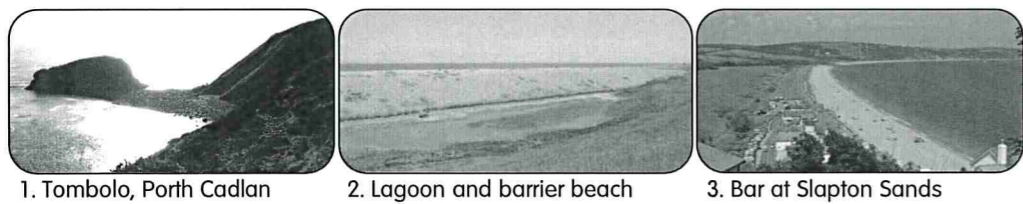


## Deposition

Beaches:  
Spits:  
Tombolos:  
Offshore bar:  
Barrier beaches and islands:  
Sand dunes:



Coasts are \_\_\_\_\_ open systems that have many flows of inputs and outputs. When these flows are balanced, they are in dynamic \_\_\_\_\_. When there is an unbalanced flow, there is a \_\_\_\_\_ system. \_\_\_\_\_ include energy from waves, the tide, wind and currents. \_\_\_\_\_ include energy released from waves, sediment build-up and removal from local system.

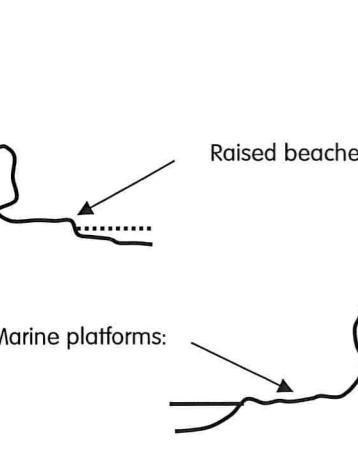


# COASTAL SYSTEMS and LANDSCAPES

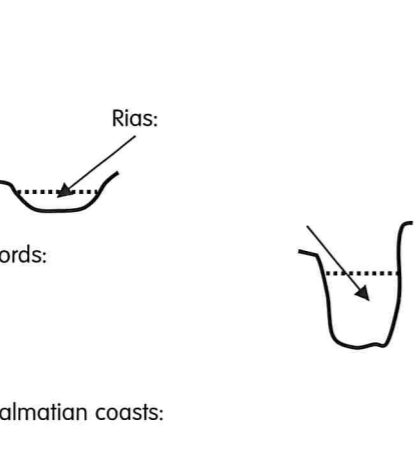
## SEA-LEVEL CHANGE

Eustatic change:  
Isostatic change:  
Tectonic change:

## EMERGENT FEATURES



## SUBMERGENT FEATURES

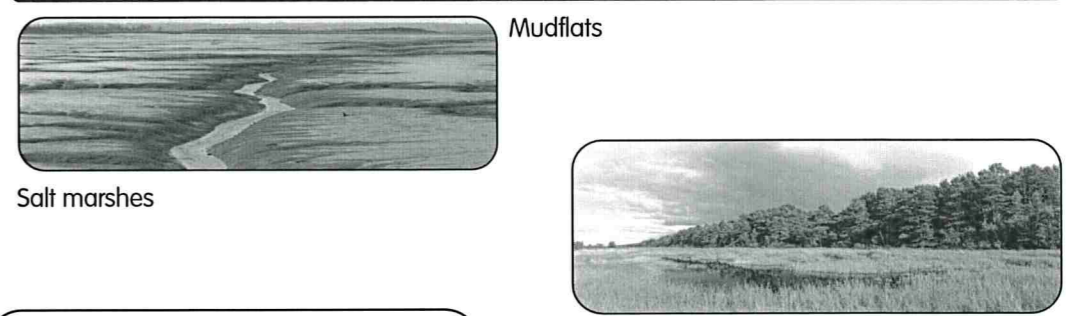


# COASTAL MANAGEMENT

Human intervention in the coastline is often necessary to protect the landforms and natural processes of the coast, to conserve biodiversity as well as human settlements, especially those at risk from sea-level rise.

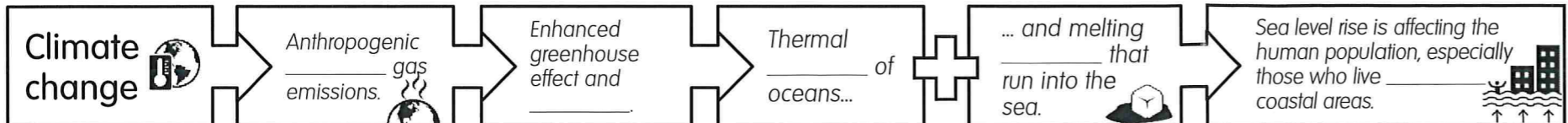
- Hard engineering:
- Sea walls –
  - Rock armour (riprap) –
  - Gabions –
  - Cliff fixing –
  - Groynes –
  - Revetments –
  - Offshore reefs –
  - Barrages –
- Soft engineering:
- 'Do nothing' approach –
  - Beach nourishment –
  - Dune regeneration –
  - Land-use management –
  - Managed retreat –
- Sustainable management  
Shoreline management plans –  
Integrated coastal zone management –

## ESTUARINE MUDFLATS AND SALTMARSHES



## CASE STUDY

## SYNOPTIC GEOGRAPHY

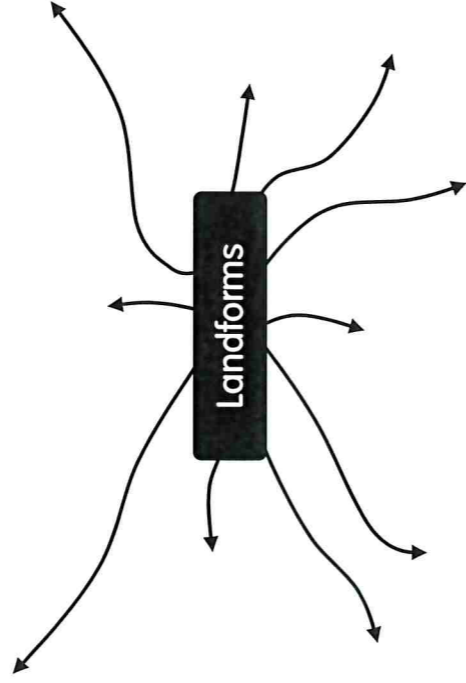


# LOCAL COASTAL PROCESSES:



## FACTS AND FIGURES

Photos



## SUSTAINABLE MANAGEMENT

# COASTAL LANDSCAPES BEYOND THE UK:



Map and photos

## FACTS AND FIGURES

## OPPORTUNITIES ALONG THE COAST:

## CHALLENGES ALONG THE COAST:

