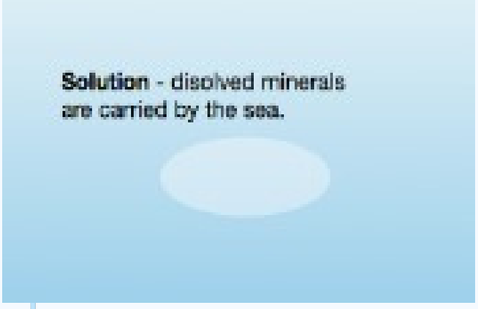
TYPES OF EROSION

HYDRAULIC ACTION - THIS IS THE SHEER POWER OF THE WAVES AS THEY SMASH AGAINST THE CLIFF. AIR BECOMES TRAPPED IN THE CRACKS IN THE ROCK AND CAUSES THE ROCK TO BREAK APART.

ATTRITION - THIS IS WHEN ROCKS THAT THE SEA IS CARRYING KNOCK AGAINST EACH OTHER. THEY BREAK APART TO BECOME SMALLER AND MORE ROUNDED.



TYPES OF TRANSPORTATION

AMOUNT OF ENERGY REQUIRED AND SIZE OF MATERIAL

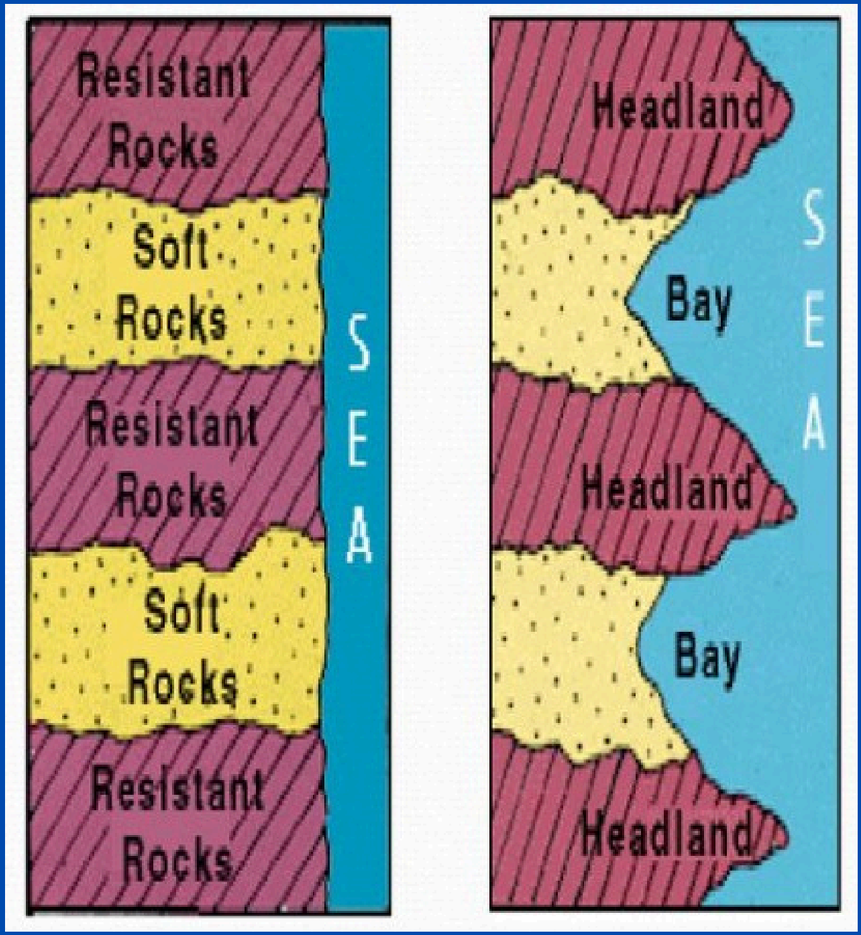
TRACTION

SALTATION

SUSPENSIOON

SOLUTION

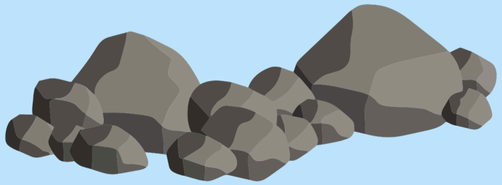
HEADLANDS AND BAYS - DISCORDANT COAST.

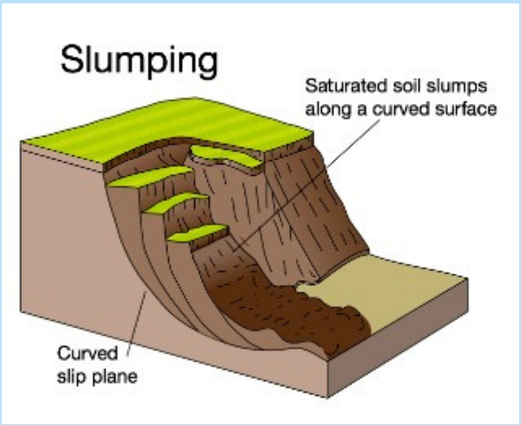


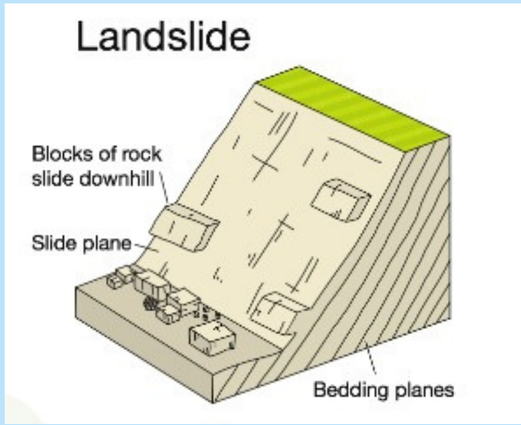
Words you MUST use in your explanation -

Geology, hydraulic action, erosion, abrasion, resistant, less resistance, more quickly, discordant coastline, sand, deposited,waves less energy.

SLUMPING AND SLIDING

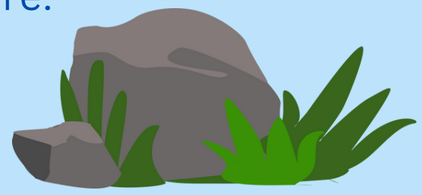






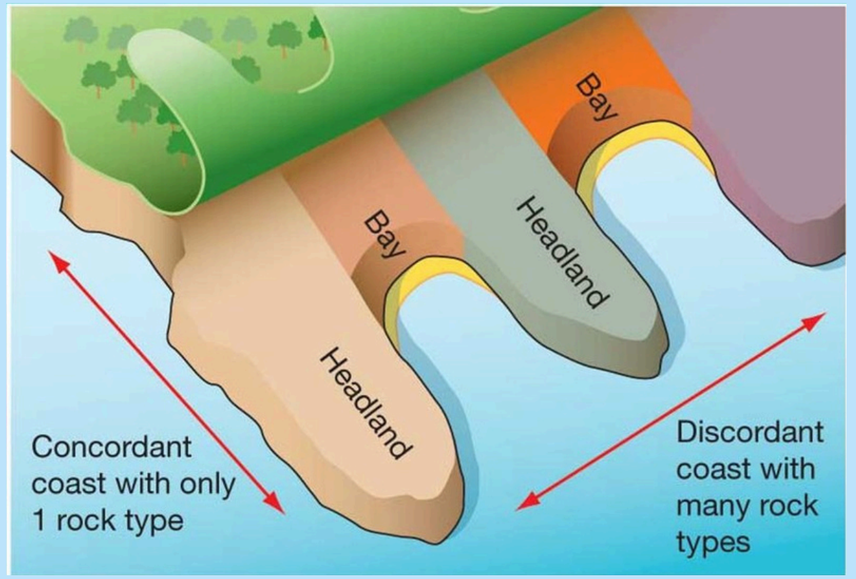
Cliffs formed from boulder clay, material deposited by glacial periods, are susceptible to high rates of coastal erosion. The soft boulder clay is quickly eroded through hydraulic action and abrasion. Sub-aerial processes, such as rainfall, also cause erosion. This often happens when layers of boulder clay, left behind by melting glaciers, become saturated and cause the cliff to slump. The debris on the beach is then eroded by the sea, leaving the cliff exposed once more.

In areas of more resistant cliff material erosion is greatest when waves break at the foot of a cliff. This causes erosion at the base of the cliff. This creates a wave-cut notch in the base of the cliff. As the notch increases in size, the weight of the cliffs above becomes too much to support, leading to a landslide. This material will provide temporary protection for the cliff behind. However, once the sea has removed it, this process will occur again. Wave-cut platforms will be created where cliffs are made of more resistant material.



THE INFLUENCE OF GEOLOGY ON THE COASTAL ENVIRONMENT.

On **concordant** coastlines, the rock run parallel with thecoast. Erosion will take a long time to break down the hard rock. If erosion does break through, a **cove** may form when the soft rock is eroded.



Ondiscordant coastlines, the rock runs perpendicular (at a right angle) with the coast. This gives us **headlands** and **bays.** The the soft rock is eroded away more quickly than the hard rock.

As more resistant rocks (e.g. chalk, limestone) erode more slowly than less resistant rocks, they project into the sea as headlands. Less resistant rocks (e.g. clays and sands) have less structural strength and are eroded easily. Less resistant rocks typically produce lower cliff profiles that experience mass movement,

Caves, Arches, Stacks and Stumps

Ingredients to form a coastal stump:

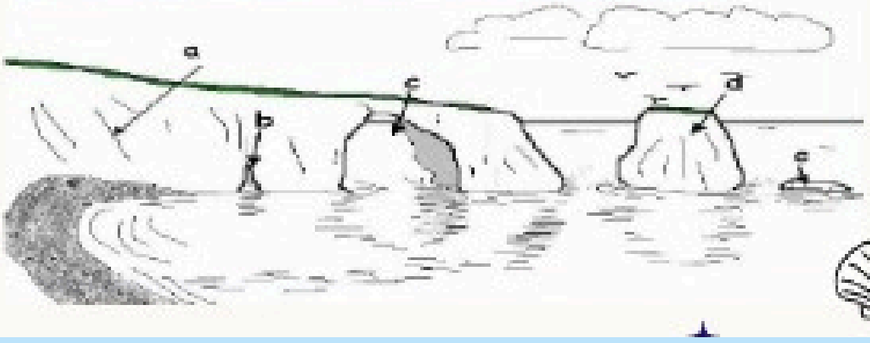
Directions:

Describe step by step how a stump is formed using the diagrams below to help you.

Key words to include;

Hydraulic action
Erosional processes
Headland
Collapse
Weathering
Abrasion
Crack
Hard rock

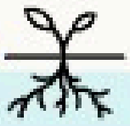
Summarise the recipe in this jar



Weathering

Describe step by step how each type of weathering occurs. then draw a diagram to represent it

Biological weathering



Chemical weathering

Mechanical weathering – Freeze thaw

Mechanical weathering – onion skin