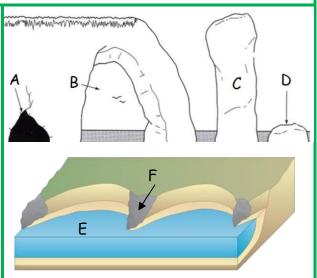
## Coastal erosion and weathering:

- Coasts are constantly changing due to waves, erosion, transportation and deposition.
- How coasts change depend on the types of rocks that are in different areas. **Harder rock**, like limestone and sandstone, **erodes slowly**. **Softer rock**, like clay, **erodes more quickly**.

|                           | Description   |
|---------------------------|---|
| Name                      |   |
| Abrasion                  | As waves smash rocks against cliff surfaces, they are worn away and become smoother. This is known as the "sandpaper effect".   |
| Hydraulic<br>power        | Air becomes trapped in faults in cliffs. When waves break against the cliffs, the air is compressed and forces the fault to become bigger. This eventually causes a piece of the cliff to break away. |
| Solution                  | Acids in sea water dissolve certain types of rock, such as limestone or chalk, causing them to gradually erode over time.   |
| Freeze-thaw<br>weathering | Water collects in faults during the day. At night, this water freezes and expands. This makes faults bigger over time and is similar to hydraulic power.  |

# **Coastal landforms:**

- Landforms which occur on coasts include **headlands**, **bays**, **caves**, **arches**, **stacks** and **stumps**.
- A is a cave. These form when a fault is eroded.
- B is an **arch**. These form when two back to back caves break through a headland.
- C is a **stack**. These forms when an arch grows bigger and the roof of the arch eventually collapses.
- D is a **stump**. These form when stacks erode over time and eventually collapse.
- E is a **bay**. These form when weak rock, such as clay, is eroded, creating a sheltered area.
- F is a **headland**. These form when harder rock erodes slowly, causing it to stick out into the sea as the weaker rock around it is eroded.



## **Key words and terms:**

## Weathering:

The weakening of rock before it is eroded.

#### **Erosion:**

The wearing away and removal of material by a moving force, like a wave. **Deposition:**When material being transported by the sea is dropped.

#### Abrasion:

See the first table.

# **Hydraulic power:**

See the first table.

#### **Solution:**

See the first table.

# Freeze-thaw

# weathering:

See the first table.

# Landform:

A feature of the landscape which has been formed by erosion, transportation and deposition.

## Fault:

A crack in a rock.