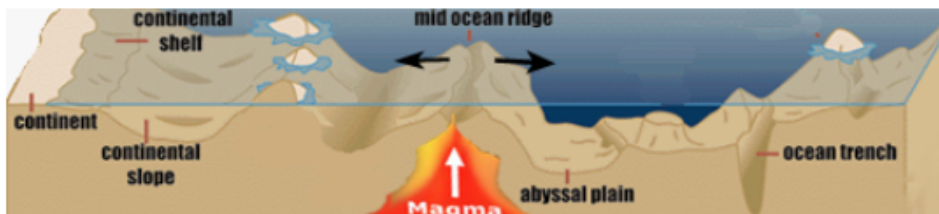


Key concepts include:

- geology of the ocean floor;
- physical properties and movement of ocean water; and
- interaction of organisms in the ocean.

## OCEAN FEATURES

- The ocean's geological and physical properties affect the interactions among organisms .



- Important features of the ocean floor are the **continental shelf**, **continental slope**, **continental rise**, **abyssal plain**, and **ocean trenches**.
  - Most areas are covered with thick layers of **sediments** (e.g., sand, mud, rocks).
- The depth of the ocean varies.
  - Ocean **trenches** are very **deep** and the **continental shelf** is relatively **shallow**.

## OCEAN WATER

- Ocean water is a complex **mixture of gases**, **water**, and **dissolved solids**.
  - Marine organisms** are dependent on dissolved gases for survival
- Salinity** is the measure of all salts dissolved in water.
  - The **salinity** of ocean water varies in some places, depending on rates of **evaporation**, the **depth** of the water, melting **icebergs**, and amount of **runoff** from nearby land

## OCEAN MOTION

- Ocean **currents**, including the **Gulf Stream**, are caused by **wind patterns** and the differences in water due primarily to **temperature** differences.
- Ocean currents affect the **mixing** of ocean waters.
  - This can affect **plant** and **animal** populations.
  - Currents also affect **navigation** routes



## OCEAN LIFE

- In oceans, both **plants** and floating organisms such as **algae** serve as **producers** within a **food chain**
- Organisms in the ocean environment are **grouped** according to their movement: **floating** organisms (e.g., **plankton**), **swimming** organisms, and organisms that are **non-moving** and adhere to surfaces on the ocean floor.
- These organisms play a role in ocean **food chains**.

