

STONG TOWER ACADEMY

SUBJECT: Geography

CLASS: SSS 2

TOPIC: MAJOR OCEANS OF THE WORLD

About the ocean

1. An ocean basin is a very large depression on the earth surface which is filled by a great mass of salt-water.
2. The ocean occupies more than 70% or 360 million square kilometre of the earth's total area of 510 million square kilometre.
3. Oceanography: This simply refers to the study of the oceans, its water, and movement of the water and the economic significance of the ocean.
4. The ocean floor is not flat, its relief bear semblance to the relief of the ground surface. The depth of the ocean is measured currently with a technique called radar sound technique.

Major Oceans of the World

| Ocean    | Approximate Area(million km <sup>2</sup> ) | Maximum Depth(m) |
|----------|--|------------------|
| Pacific  | 165  | 10,542           |
| Atlantic | 82   | 9,218            |
| Indian   | 74   | 7,450            |
| Rctic    | 14   | 5,449            |

The sea generally occupy approximately 25 million square kilometre (km<sup>2</sup>)

ECONOMIC IMPORTANCE OF THE OCEANS TO MAN

1. Tourism: Oceans, especially around the beaches and the coasts are centers of tourist attractions. E.g. Bar Beach in Lagos.
2. Ocean transportation: Oceans are used worldwide as major means of transportation and communication between countries and continents during international trade.
3. Provision of employment: The oceans provide employment opportunity to many people e.g. fishermen, sailors, canoe and ship builder.
4. Provision of protein food: The oceans provide protein food for man in form of fish, prawn, crayfish, crabs, etc
5. Extraction of salts: The ocean water provides the raw materials from which domestic and industrial salts are extracted.
6. Sources of Minerals: The oceans sere as sources of national resources in form of mineral such as petroleum and natural gas especially within the continental shelf of the oceans.

7. Promotion of economic activities: World trade is made possible through oceans navigation and many other economic activities such as ship building and transport.
8. Sources of raw materials for industries: The oceans are sources of sea weeds e.g. water hyacinth and others used for making cosmetic and fertilizers in industries.
9. Development of seaports. The ocean serves as medium for the development of seaport which are terminals for ships. E.g. Lagos port.
10. Research Purposes: The ocean provides opportunity and medium for research in aquatic plants and animals that are useful to man. Example Nigerian Institute of Oceanography and Marine Research in Lagos.

## RELIEF OF THE OCEAN

The relief of the ocean can be divided into 5 major relief features. These are

### 1. Continental Shelf

The continental shelf is an area of shallow water (usually less than 250m deep) which surrounds the continent.

Features

1. It is a continuation of the coastal plain into the sea.
2. It forms a gentle sloping platform that extends from the sea level.
3. It is rich in Plankton, making it good fishing ground of the world.
4. It contains minerals e.g. Petroleum and natural gas
5. It varies in width generally between 32 – 160km
6. It forms about 7% of total area of the ocean.

## Economic Importance of Continental Shelf

### 1. It is a good fishing ground

The shallowness enables sunlight to penetrate through the water thereby aiding the growth of fish food called Plankton. Thus, it serves as good fishing ground.

2. It favours development of natural harbours. Areas with continental shelf offshore experience high tide which favours port development e.g. Southampton, London, Hamburg.
3. Facilitates exploration of Petroleum: Since the continental shelf is shallow. It aids the exploration of crude oil.
4. They are tourist centres: Due to its shallowness and its location, they therefore facilitate tourist activities.
5. Sites for sporting activities: Continental shelf also provides avenues or sites for sporting activities.
6. Recreational activities: It provides areas where people can relax especially during holidays and festive periods.

## 2. CONTINENTAL SLOPE

Features:

- (i) The continental slope links the continental shelf with the deep sea plain or ocean floor.
- (ii) It is narrow and steep
- (iii) It drops in depth to about 400 metres

## 3. OCEAN RIDGE

Features:

- (i) Ocean ridge takes the form of either a ridge or a plateau
- (ii) It rises up from the deep sea plain
- (iii) Some rise above the surface to form oceanic islands.

## 4. DEEP SEA PLAIN

- (i) This is a wide, gently undulating or fairly level surface
- (ii) It has a depth of between 000m and 3000m
- (iii) It occupies 2/3 of the ocean floor
- (iv) It is also called Abyssal Plain

## 5. OCEAN DEEPS

- (i) These are the deep, narrow trenches that plunge as great ocean deeps.
- (ii) They are located close to the continent and are of about 9,000 metres in depth.  
E.g. Mariana trench
- (iii) Materials mainly deposited on the ocean floor include oozes, clay and muds.