

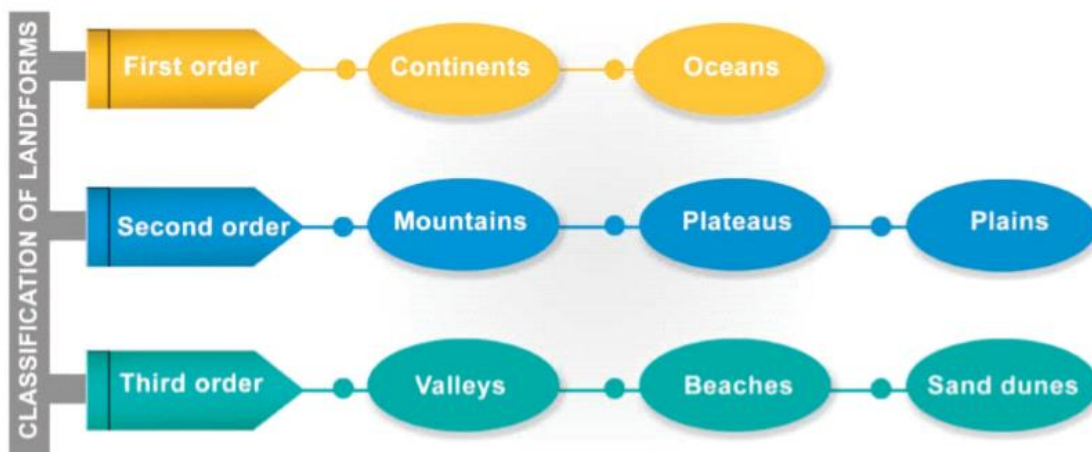
6th Social Science Lesson 6 Notes in English

6] Land and Oceans

Introduction

- Pangea, the Super Continent, and the Sea around it is Panthalassa. It was 200 million years ago, when these landmasses moved away from each other to gain the present position as continents and oceans.
- The Earth is covered by water which occupies **71 percent** and land that occupies **29 percent** of the Earth's surface

Landforms in Earth:



First order landforms

- Continents and oceans are grouped as first order landforms. The vast land masses on Earth are called Continents and huge water bodies are called Oceans. There are seven continents.
- They are **Asia, Africa, North America, South America, Antarctica, Europe and Australia**. Asia is the largest continent, whereas Australia is the smallest one.
- Apart from continents, there are five oceans located on the Earth's surface. They are the Pacific, Atlantic, Indian, Southern and Arctic Ocean.
- Among these oceans, the Pacific Ocean is the largest and the Arctic Ocean is the smallest.

Land classification - Sangam period

- | | |
|--------------------|--|
| 1. Kurinji | - Mountain and its environs |
| 2. Mullai | - Forest and its surroundings |
| 3. Marutham | - Agricultural land and its adjoining areas. |
| 4. Neithal | - Sea and its environs |
| 5. Palai | - Desert region |

Second order landforms:

The second order landforms are categorised as mountains, plateaus and plains.

Mountain:

- A landform that rises 600 metre above its surroundings and has steep slopes is called a mountain.
- The Himalayas of Asia, **the Rocky Mountains of North America and the Andes of South America are such examples.**
- The Andes mountain in South America is the longest mountain range (7,000 km) in the world.
- The highest point of a mountain is known as peak. Mt. Everest is the highest peak (8,848 m) in the world.
- Udhagamandalam, Kodaikanal, Kolli hills, Yercaud and Yelagiri are some of the hill stations found in Tamil Nadu.

Plateaus:

- Plateaus are the elevated portions of the Earth that have flat surfaces bounded by steep slopes. The elevation of plateaus may be a few hundred metre or several thousand metre.
- Tibetan Plateau is the highest plateau in the world. So, it is called as the **'Roof of the world'**. The flat topped part of the plateau is called Tableland. The plateaus are generally rich in minerals.
- The Chotanagpur Plateau is one of the mineral rich plateaus in India. Therefore, mining is one of the major activities of the people living here.
- The Deccan Plateau in peninsular India is of volcanic origin.

Plains:

- Plains are a flat and relatively low-lying lands. **Plains are usually less than 200 metre above sea level.**
- Most plains are formed by rivers and their tributaries and distributaries. The plains are used extensively for agriculture due to the availability of water and fertile soil.
- They are most suitable for human inhabitation. Hence, they are the highly populated regions of the world. The oldest civilisations like the **Mesopotamian and the Indus civilisations developed in river plains.**
- The Indo- Gangetic plain in North India is one of the largest plains in the world. Coastal plains are the low lying lands adjacent to oceans and seas.

Third order land forms:

Third order landforms are formed on mountains, plateaus and plains mainly by erosional and depositional activities of rivers, glaciers, winds and waves.

Oceans

- The Earth looks blue when we see it from space. This is because, two-thirds of it is covered by water.
- The water is found in oceans and seas. Oceans are vast expanse of water. Seas are water bodies partially or fully enclosed by land.
- As you have studied previously, there are five main oceans in the world.

Pacific Ocean:



Pacific Ocean and its Marginal Seas

- The Pacific Ocean is the largest and deepest ocean on the Earth. It covers about one-third of the Earth's total area and spreads for about **168.72 million sq.km**. It is bounded by Asia and Australia in its west and North America and South America in its east.
- It stretches from the Arctic Ocean in the north to the Southern Ocean in the south. This ocean's shape is roughly triangular with its apex in the north at the Bering Strait which connects the Pacific Ocean with the Arctic Ocean.
- The Bering Sea, the China Sea, the Sea of Japan, Tasman Sea and the Philippine Sea are some of the marginal seas of the Pacific Ocean.
- Indonesia, Philippines, Japan, Hawaii, New Zealand are some of the islands located in this Ocean.

Atlantic Ocean:



Atlantic Ocean and its Marginal Seas

- The Atlantic Ocean is the second largest ocean on the Earth. It covers one sixth of the Earth's total area and spreads for about **85.13 million sq.km**. It is bounded by North America and South America in the west and Europe and Africa in the east.
- Like the Pacific, it stretches from the Arctic Ocean in the north to the Southern Ocean in the south. **The shape of the Atlantic Ocean resembles the letter 'S'.**
- The Strait of Gibraltar connects the Atlantic Ocean with the Mediterranean Sea. The Atlantic Ocean is the busiest shipping route between the Eastern and Western hemispheres.
- The deepest point is the Milwaukee Deep in the Puerto Rico Trench. It has a depth of **about 8600 m**.

- The Caribbean Sea, the Gulf of Mexico, the North Sea, the Gulf of Guinea and the Mediterranean Sea are important marginal seas of the Atlantic Ocean. St. Helena, Newfoundland, Iceland and Falkland are some of the islands found in this ocean.

Indian Ocean



Indian Ocean and its Marginal Seas

- The Indian Ocean is the third largest ocean on the Earth's surface. It covers an area of about 70.56 million sq.km.
- It is named after India. It is triangular in shape and bounded by Africa in the west, Asia in the north and Australia in the east.
- The Andaman and Nicobar Islands, Lakshadweep, Maldives, Sri Lanka, Mauritius and the Reunion Islands are some of the islands located in the Indian Ocean. Malacca strait connects the Indian Ocean and the Pacific Ocean.
- The Bay of Bengal, the Arabian Sea, the Persian Gulf and the Red Sea are some of the important marginal seas of the Indian Ocean. **The Java trench (7,725 m) is the deepest point in the Indian Ocean.**

Southern Ocean:



Southern Ocean and its Marginal Seas

- The Southern Ocean surrounds the continent of Antarctica and is enclosed by the **60°S latitude**. It covers an area of **21.96 million sq.km**. It is bordered by the southern parts of the Pacific, the Atlantic and the Indian Oceans.
- The Ross Sea, the Weddell Sea and the Davis Sea are the marginal seas of this Ocean. Farewell Island, Bowman Island and Hearst Island are some of the islands located in this ocean.
- The water in this ocean is very cold. Much of it is covered by sea ice. The deepest point in this ocean is South Sandwich Trench with a depth of **7,235 m**.

Arctic Ocean:



Arctic Ocean and its Marginal Seas

- The Arctic Ocean is the smallest ocean. It covers an **area of 15.56 million sq.km**. It lies within the Arctic Circle.
- It remains frozen for most of the year. The Norwegian Sea, the Greenland Sea, the East Siberian Sea and the Barents Sea are some of the marginal seas of this ocean. Greenland, New Siberian Island and Novaya Zemlya Island are some of the islands located in the Arctic Ocean.

- The North Pole is situated in the middle of the Arctic Ocean. The Eurasian Basin is the deepest point in the Arctic Ocean, which is about **5,449 m in depth**.

More to Know:

1. Dharmapuri Plateau, Coimbatore Plateau and Madurai Plateau are found in Tamil Nadu.
2. The plains have been the cradle of civilisations from the earliest times. For example: the Indus in India, the Nile valley in Egypt are some of the early civilisations which developed and flourished.
3. **Isthmus :**
A narrow strip of land which connects two large landmasses or separates two large water bodies.
4. December 11 - International Mountain Day
5. The deepest point **Mariana Trench is 10,994 m-** and is located in the Pacific Ocean. A chain of volcanoes is located around the Pacific Ocean called the Pacific Ring of Fire.
6. If Mount Everest, which is the highest point (8,848 metres) was plugged into the Mariana Trench, still there would be **2,146 metres of water left**. The depth in meters from mean sea level is denoted as m.
7. The Spanish navigator Ferdinand Magellan named the ocean Pacific, meaning calm or tranquil.
8. Palk Strait connects the Bay of Bengal and Palk Bay.

9. Various channels:

- 6° Channel separates Indira Point and Indonesia.
- 8° Channel separates Maldives and Minicoy islands.
- 9° Channel separates Lakshadweep Islands and Minicoy islands.
- 10° Channel separates Andaman and Nicobar Islands.