

NCERT - CLASS 6 GEOGRAPHY - CHAPTER 5: MAJOR DOMAINS OF EARTH

- Earth's surface → zone where three major components of the environment meet, overlap and interact
- Lithosphere: solid portion of the earth on which we live
- Atmosphere: gaseous layer surrounding earth - where gases such as oxygen, nitrogen, carbon dioxide, etc are found
- Hydrosphere: portion of earth containing water in the form of ice, water, water vapour
- Biosphere: zone containing all forms of life where all three components meet
- Lithos → stone; Atmos → vapour; Hudor → water; Bios → life

LITHOSPHERE

- The solid portion of the earth
- Comprises of rocks of earth's crust, thin layers of soil
- Two main divisions: Continent → large landmasses; Ocean Basins → huge water bodies
- Sea level remains the same everywhere
- Elevation of land measured with respect to sea level (sea level = zero)
- Highest peak - Mt. Everest (Nepal) = 8,848m above sea level
- 29th May 1953 - Edmund Hillary (NZ), Tenzing Norgay (India) - first men to climb Mt. Everest; 16th May 1975 - Junko Tabei (Japan) - the first woman; 23rd May 1984 - Bachendri Pal - first Indian woman
- Greatest depth - Mariana Trench (Pacific Ocean) ~ 11,000 m



Continents

- 7 major continents separated by water → Asia, Europe, Africa, North America, South America, Australia, Antarctica

Asia:

- Largest continent → covers 1/3rd of Earth's land
- Lies in the Eastern Hemisphere
- The Tropic of Cancer passes through
- Separated from Europe by the Ural Mountains → Europe + Asia = Eurasia

Europe:

- Much smaller than Asia
- Lies to the west of Asia
- The Arctic Circle passes through
- Has water bodies on three sides

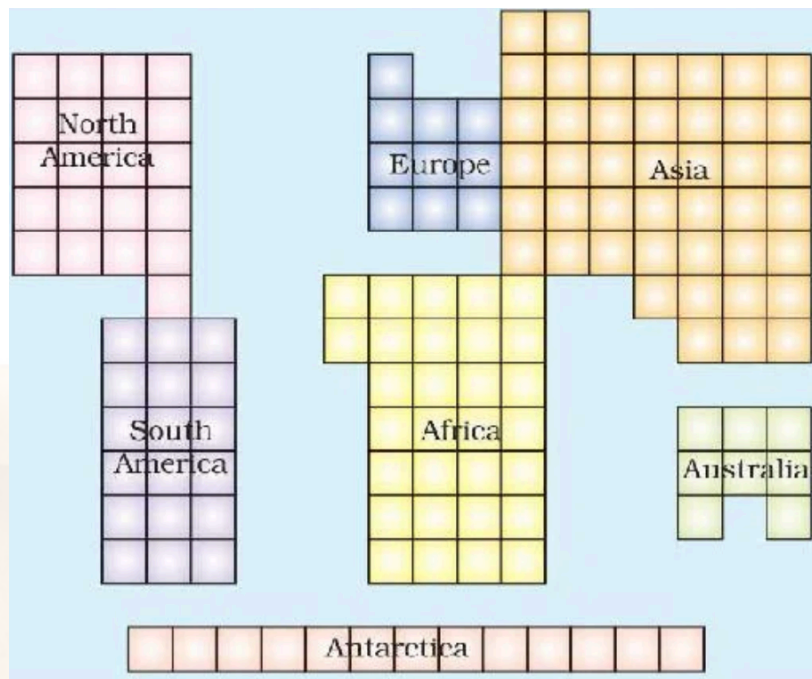
Africa:

- Second largest continent after Asia
- The Equator almost divides the continent
- The major part lies in Northern Hemisphere
- Only continent in which the Tropic of Cancer, Equator, and Tropic of Capricorn passes
- Sahara desert - the world's largest hot desert
- Has oceans and seas on all sides
- The longest river Nile flows through

North America:

- Third largest continent
- Linked to South America by the Isthmus of Panama
- Lies completely in the Northern and Western Hemisphere
- Surrounded by three oceans





South America:

- Lies mostly in Southern Hemisphere
- Andes - World's longest mountain range → runs north to south here
- Amazon - World's largest river

Australia:

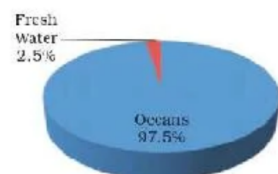
- Smallest continent
- Lies entirely in Southern Hemisphere
- Surrounded by oceans on all sides
- Called on Island Continent

Antarctica:

- Lies completely in Southern Hemisphere
- The South Pole lies at the centre of Antarctica
- Located in the South polar region → permanently covered with thick ice sheets
- No permanent human settlements
- Many countries have research stations
- Indian research stations - Dakshin Gangotri, Maitri, Bharati

HYDROSPHERE

- More than 71% water; 29% land → Earth is called the Blue Planet
- Consists of Oceans, rivers, lakes, glaciers, underground water, water vapour
- 97.5% of water found in Oceans → too salty for human use
- Only 2.5% fresh water for human use



Oceans

- Interconnected and always moving
- 3 primary movements: Waves, tides, and ocean currents
- 5 major oceans: Pacific, Atlantic, Indian, Southern, Arctic

Pacific Ocean:

- Largest
- Spread over one-third of the earth
- Mariana Trench - the deepest part of the earth
- Is almost circular in shape
- Asia, Australia, North and South America surround it

Atlantic Ocean:

- 2nd Largest
- S-shaped
- Has North & South America → Western side; Europe, Africa → Eastern side
- Indented coastline → provides natural harbours and ports
- Busiest commercial ocean



Indian Ocean:

- Only ocean named after a country - India
- Almost triangular in shape
- Has Asia → in the North; Africa → West; Australia → East

Southern Ocean:

- Surrounds Antarctica
- Extends Northward to 60°S latitude

Arctic Ocean:

- Within Arctic circle
- Surrounds the North Pole
- Connected with the Pacific Ocean by Bering Strait
- Surrounded by the Northern coasts of North America and Eurasia

ATMOSPHERE

- The thin blanket of air provides: the air we breathe; protection from the sun's rays
- Extends up to a height of 1600 km
- Divided into five layers based on composition, temperature, and other properties → Troposphere, Stratosphere, Mesosphere, Thermosphere, Exosphere
- Composition; 78% - Nitrogen, 21% - Oxygen, 1% (Carbon



dioxide, Argon, etc)

- Oxygen: It is the breath of life
- Nitrogen: Helps in the growth of living organisms
- Carbon dioxide: Absorbs heat radiated by the earth; essential for the growth of plants
- Density decreases with increasing height (max. Sea level)
→ Climbers carry oxygen cylinders to help to breathe at high altitudes
- Temperature decreases with increasing height
- Atmospheric pressure varies from place to place
- Air moves from high-pressure to low pressure
- Moving air → known as Wind



BIOSPHERE

- The zone where life exists: from microbes to mammals
- All organisms and Humans linked to each other and to the biosphere
- Organisms divided into → Plant kingdom and animal kingdom
- The three domains of the earth interact and affect each other
- Cutting forests → for clearing land for agriculture → fast removal of soil from slopes
- Earth's surface changes due to natural calamities like Earthquake, Tsunami
- Waste disposal into water bodies → water unsuitable for human use and other forms of life
- Industrial, and vehicular emissions → pollute the air
- Increase in CO₂ = Global warming

Limited usage of resources to maintain the balance of nature

