




NATURE AND SCOPE OF PHYSICAL GEOGRAPHY



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INTRODUCTION

- Geography is an independent subject it equips us to study of space and place, their effects on variety of topics such as climate, landforms, mathematics, economics, social, health, climate, plants and animals, etc.
 - Hence it is highly an interdisciplinary subject.
 - Thus, it is called “The Mother of all sciences” .
 - The term geography is derived from two Greek words “Geo” and “Graphes” which means earth and its description.
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Definition of Geography

- **Vidal - de- La -Balche** - “geography is a science of places.”
- **Alexander- Von-Humbolt-** “geography as the description of the earth which deals with interrelationship of phenomena that exist together in area.”
- Thus it means that geography is “a bridge between the human and physical sciences”.




Definition of Geography

- It studies variety of physical features like (land, vegetation, mountains, deserts, ocean, rivers, etc,) also studies cultural features or man made features like races of man kind, population, economics, social, cultural etc.).
- Biotic features like flora and fauna (plants and animals.) these features are not uniform on the surface of the earth they differ from one place to another.



Definition of Geography

- Over the past two centuries the scope of geography has witnessed a vast change as according to the advancement in man's skill, technology, research, etc. it has progressed rapidly in a dynamic and systematic way.
 - Hence geography now is an enquiry in to the causes, what, where, why and how all these geographical factors influence man and his life. Thus the geography of a region changes as human knowledge of a region increases.
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Definition of Geography

- So some call this subject a science of complexity. In its exploration geography has been a lead in understanding spatial inter-relationship, inter-dependence and interaction. So it is the subject of broad interest to science and society today.

Definition of Geography

- In 1964, William D. Pattison published an article in the Journal of Geography (1964, 63: 211-216) that suggested that modern Geography was now composed of the following four academic traditions:
 - **Spatial Tradition** – the investigation of the phenomena of geography from a strictly spatial perspective.
 - **Area Studies Tradition** – the geographical study of an area on the Earth at either the local, regional, or global scale.
 - **Human-Land Tradition** – the geographical study of human interactions with the environment.
 - **Earth Science Tradition** – the study of natural phenomena from a spatial perspective. This tradition is best described as theoretical physical geography.



Methods to Study Geography

- Articulation
 - Graphication
 - Numeration
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BRANCHES OF GEOGRAPHY


- Geography as a discipline draws its data from other specialised Social and Physical Sciences like Geology, Metrology, Pedology, Astronomy, Economics, History, Sociology, Demography, Geomorphology, Ecology, Climatology etc.
- Hence geography has a descriptive discipline can be split broadly in to two main subsidiary fields.

PHYSICAL GEOGRAPHY

- **Physical Geography** is the study of our home planet and all of its components: its lands, waters, atmosphere, and interior.
- Physical geography's primary sub disciplines study the Earth's atmosphere (meteorology and climatology), animal and plant life (biogeography), physical landscape (geomorphology), soils (pedology), and waters (hydrology).



BRANCHES OF PHYSICAL GEOGRAPHY

- Mathematical Geography
 - Geomorphology
 - Climatology
 - Oceanography
 - Hydrology
 - Biogeography
 - Soil Geography
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BRANCHES OF PHYSICAL GEOGRAPHY

- **Mathematical geography**: It deals with earth, shape, size, motion, etc.
- **Geomorphology**: It describes the evolution, origin, spatial distribution, processes and their resulting land forms, e.g. mountain plains, plateau, dunes etc., it is a combined study of geography and geology.

BRANCHES OF PHYSICAL GEOGRAPHY

- **Climatology:** It includes the study of climatic phenomena, their changes and its causes, influence on natural environment and on activities of human being.
- **Oceanography:** It studies aspects of ocean and seas, includes ocean relief, ocean floor, salinity, (chemical composition) deposits, temperature, tides, current. Flora, and fauna etc./ as well as on ecology, economical and legal issues.

BRANCHES OF PHYSICAL GEOGRAPHY

- **Bio-geography:** It is a study of organic life, their spatial distribution that is plants and animals; it combines with Phytogeography and Zoogeography.
- **Soil Geography:** Soil geography is a branch of geography which deals with soil forming processes, factors influenced in soil forming processes, soil types, composition and its distribution at micro, meso and macro level.

BRANCHES OF PHYSICAL GEOGRAPHY

- **Hydrology:** Hydrology is the study of the distribution and movement of water both on and below the Earth's surface, as well as its impact on physical and human phenomena.

Nature of Physical Geography

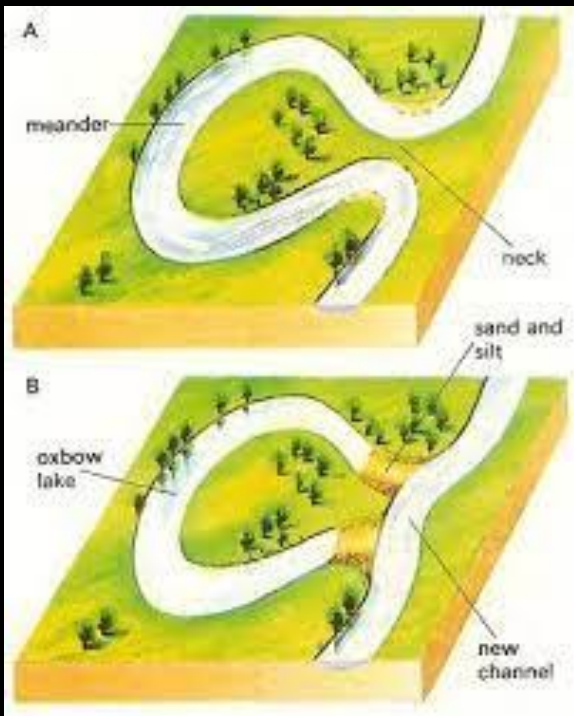
- Physical Geography is that branch of Geography which deals with natural features of the Earth's surface as distinct from its political dimensions, commercial or historical divisions.
- According to **W.M. Davis** Physical Geography may be defined as the study of those features of the Earth which are involved in relation to the Earth and man that is the study of man's physical environment, where it encompasses the physical features like mountains, plains, plateaus, soil, natural vegetation and a variety of land forms

Nature of Physical Geography

- In other words, Physical Geography deals with the physical background of those aspects of air (Atmosphere), land (Lithosphere) and water (Hydrosphere) which are quiet independently of man affect the environment in which we live, which are also almost beyond our control.
- Off late, to make physical Geography more comprehensive aspects of biosphere i.e., natural soil, natural and fauna vegetations, distributions have been included.

Nature of Physical Geography

- Geography in general is concerned with variation of phenomena (physical and human) from place to place.
- Physical Geography it explains the relationship between the prevailing land form, soil or natural vegetation and it's relationship with natural forces or factors governing in operating in their formation.





Alluvial Cone

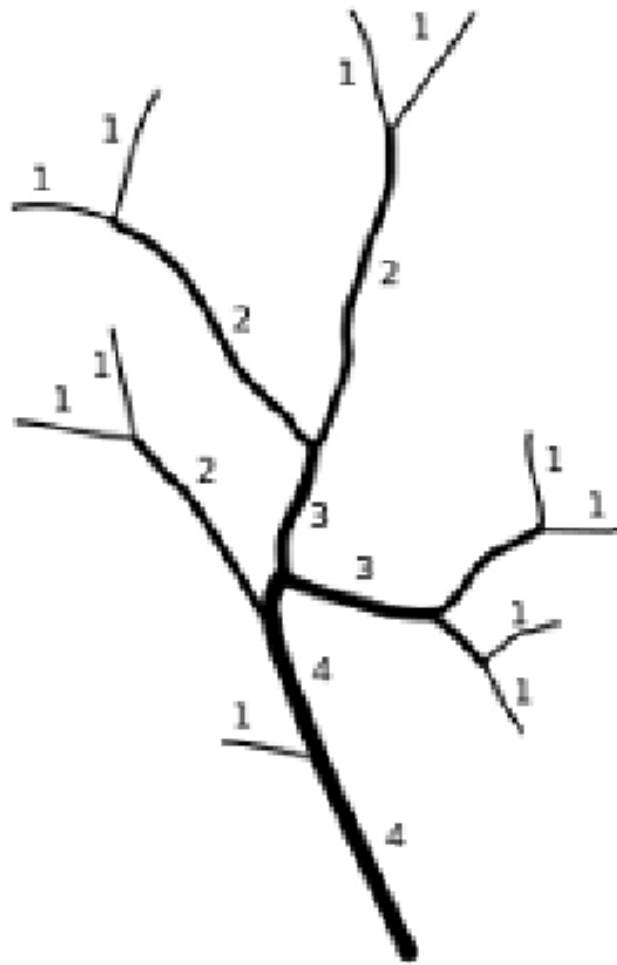


Alluvial Fan

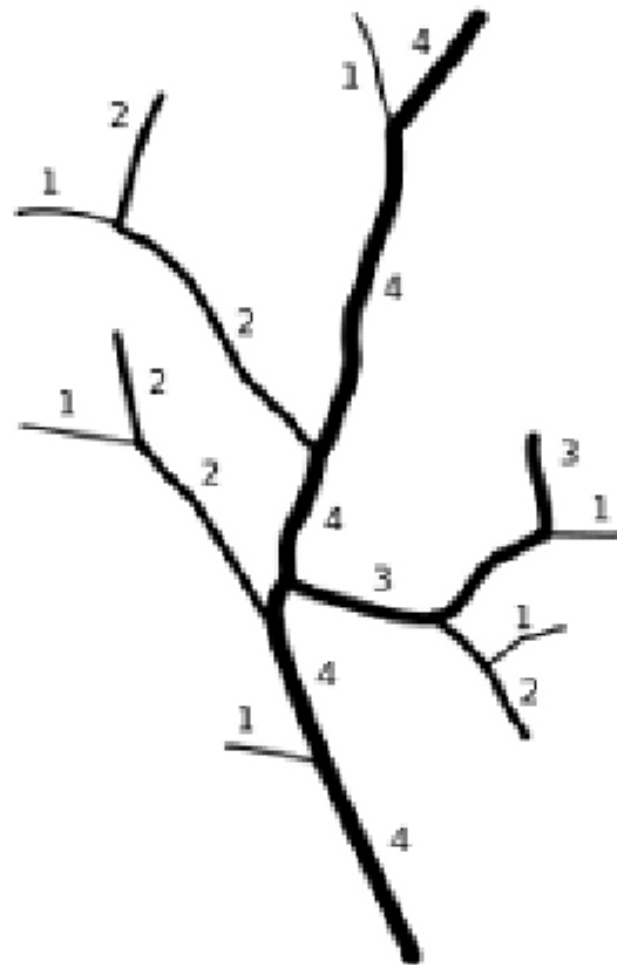


Alluvial Fan



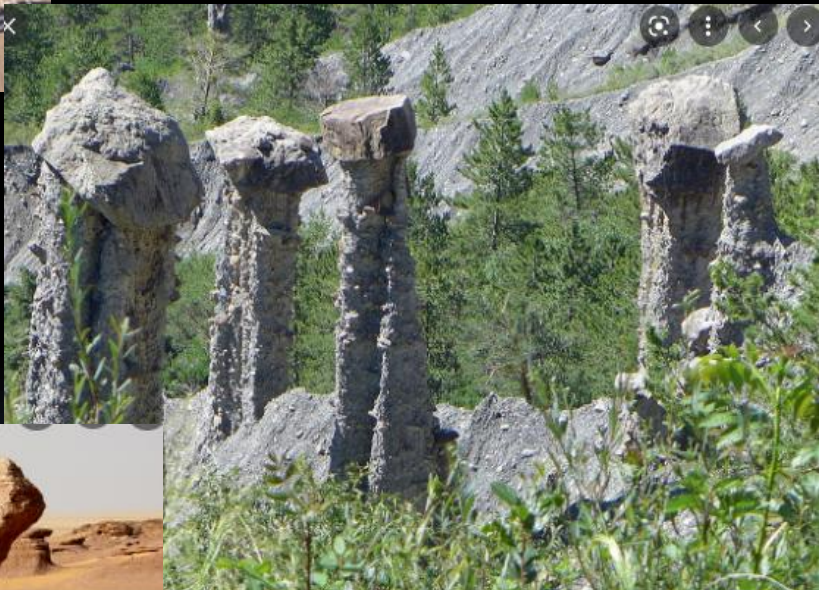


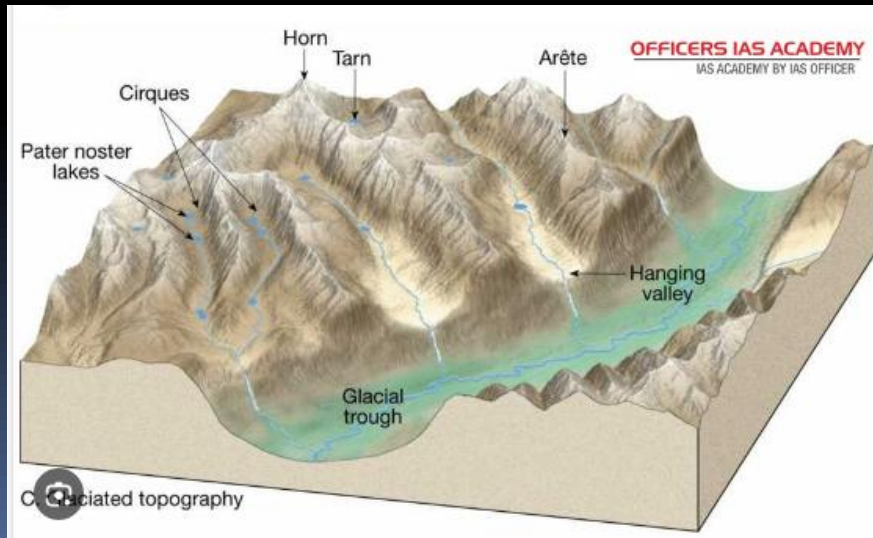
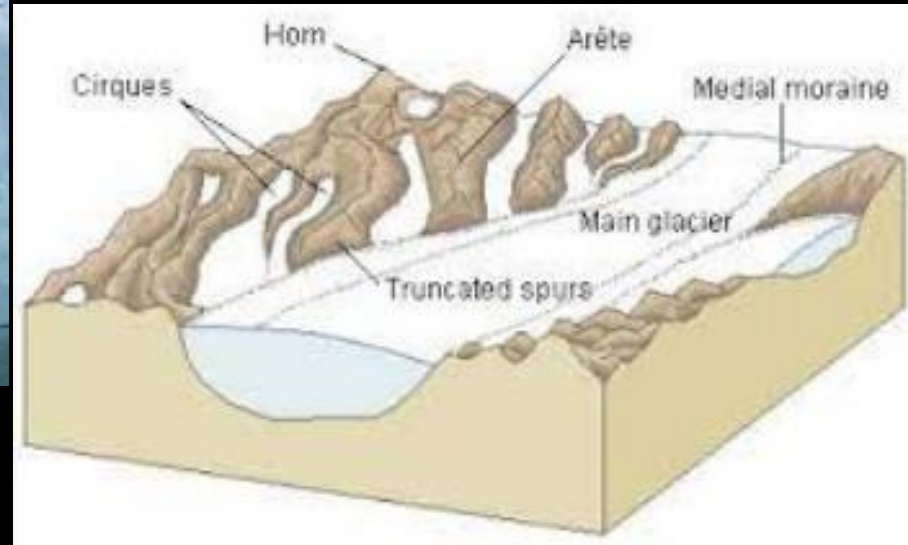
Strahler

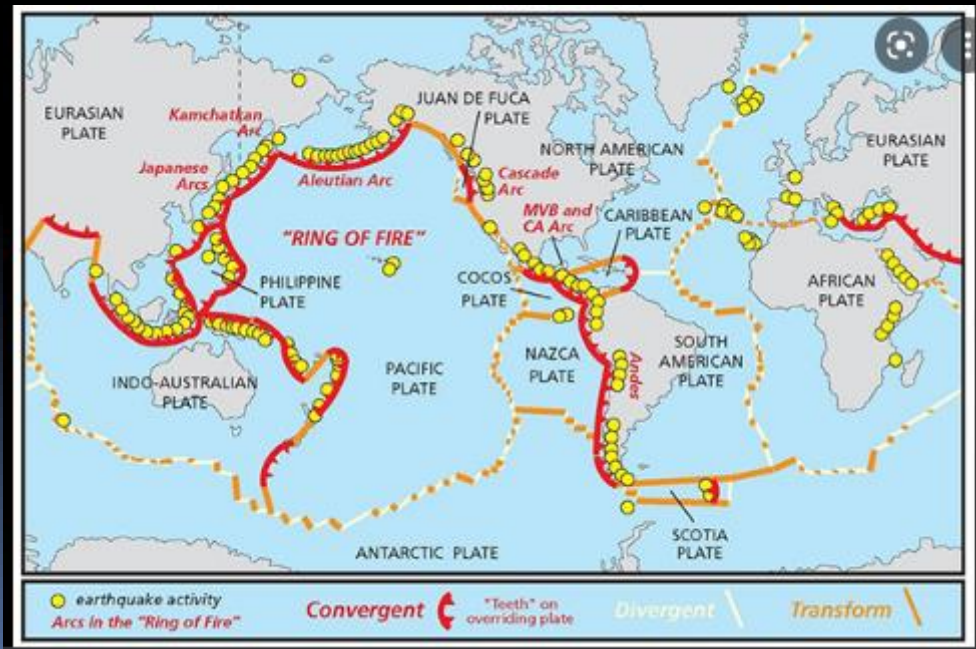
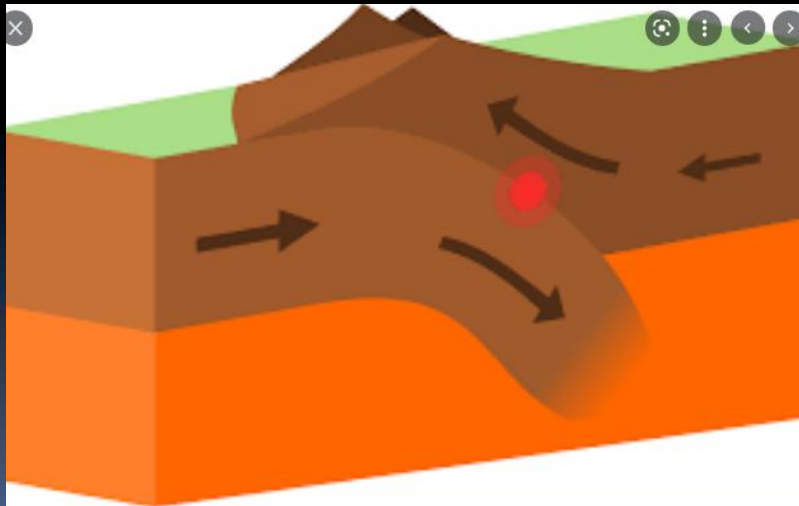
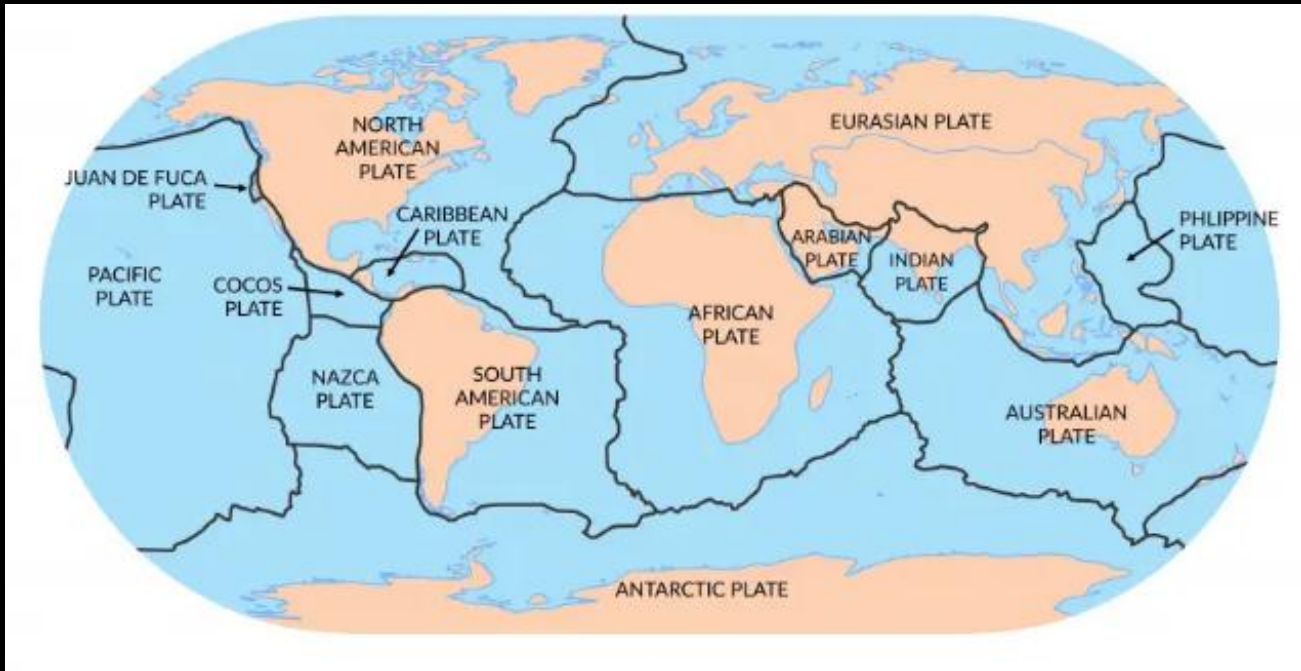


Horton

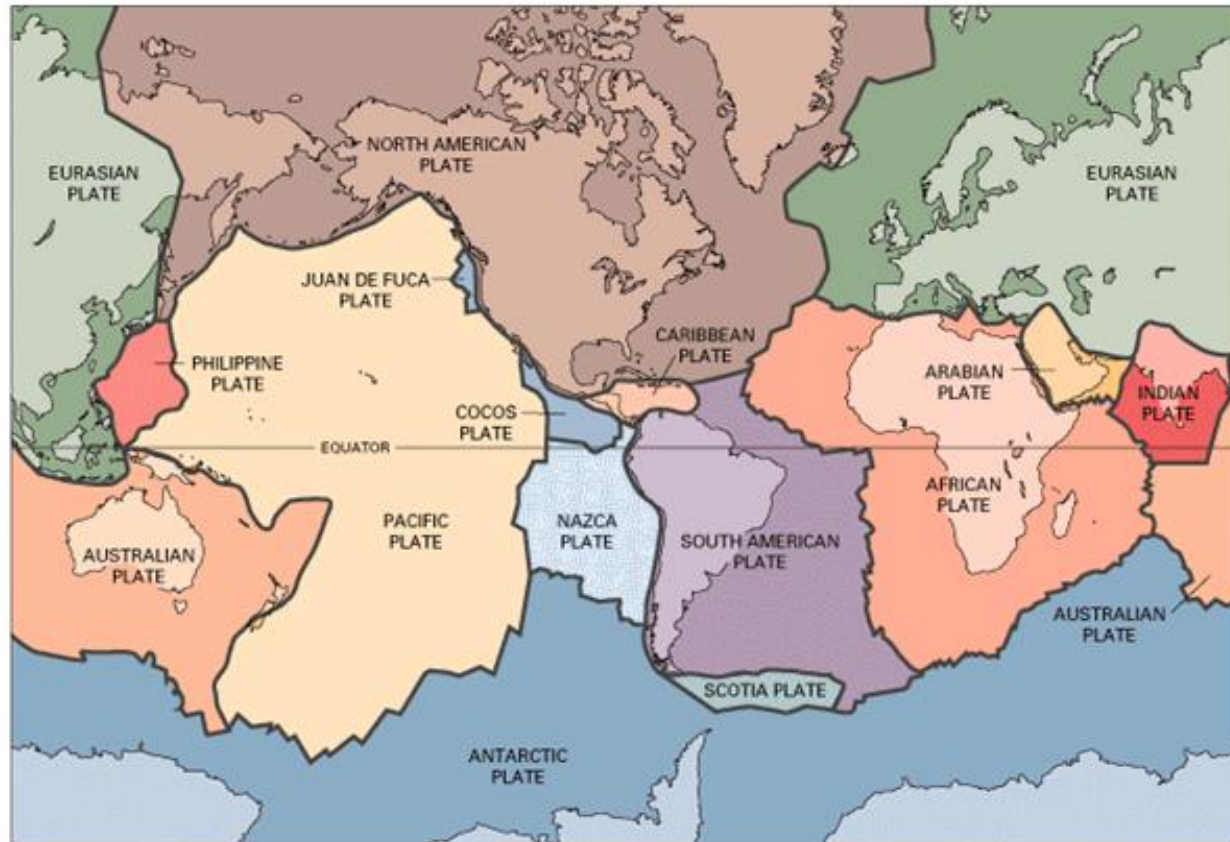








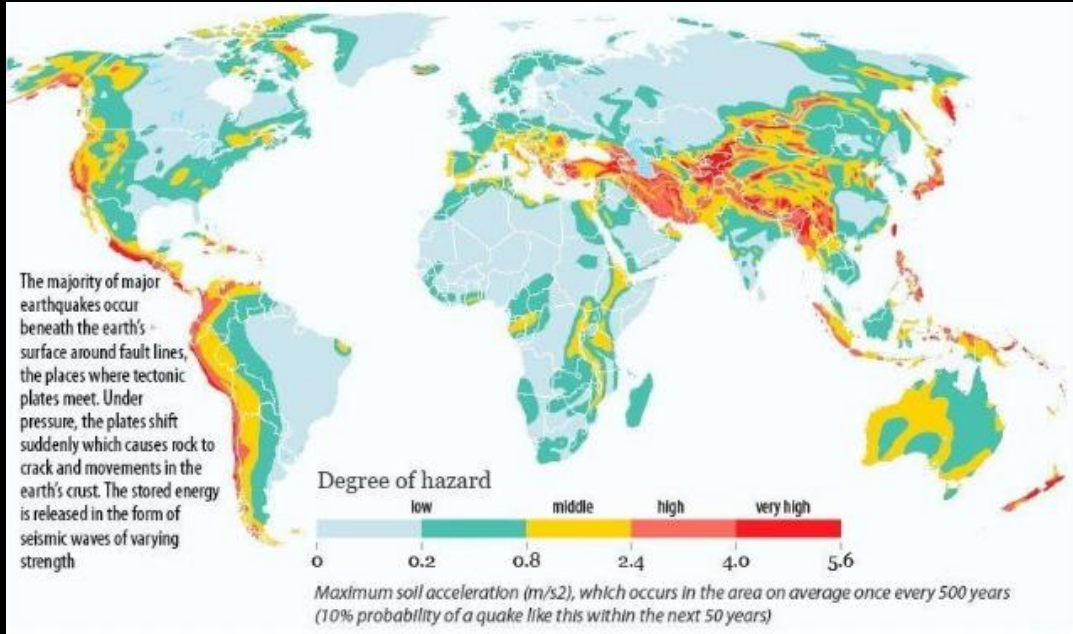
Earth's Plates



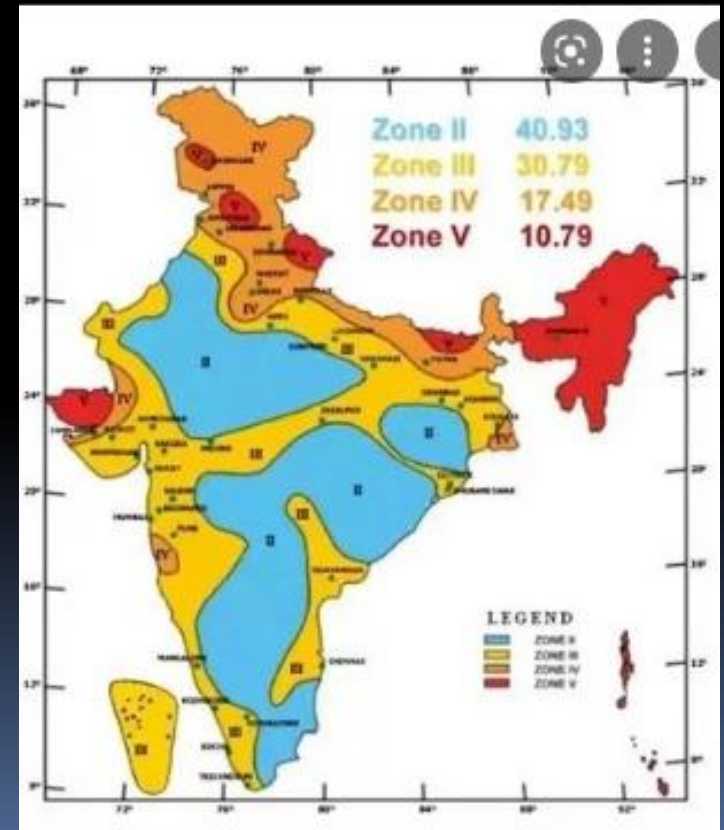
Major Plates = 07

Minor Plate = 15

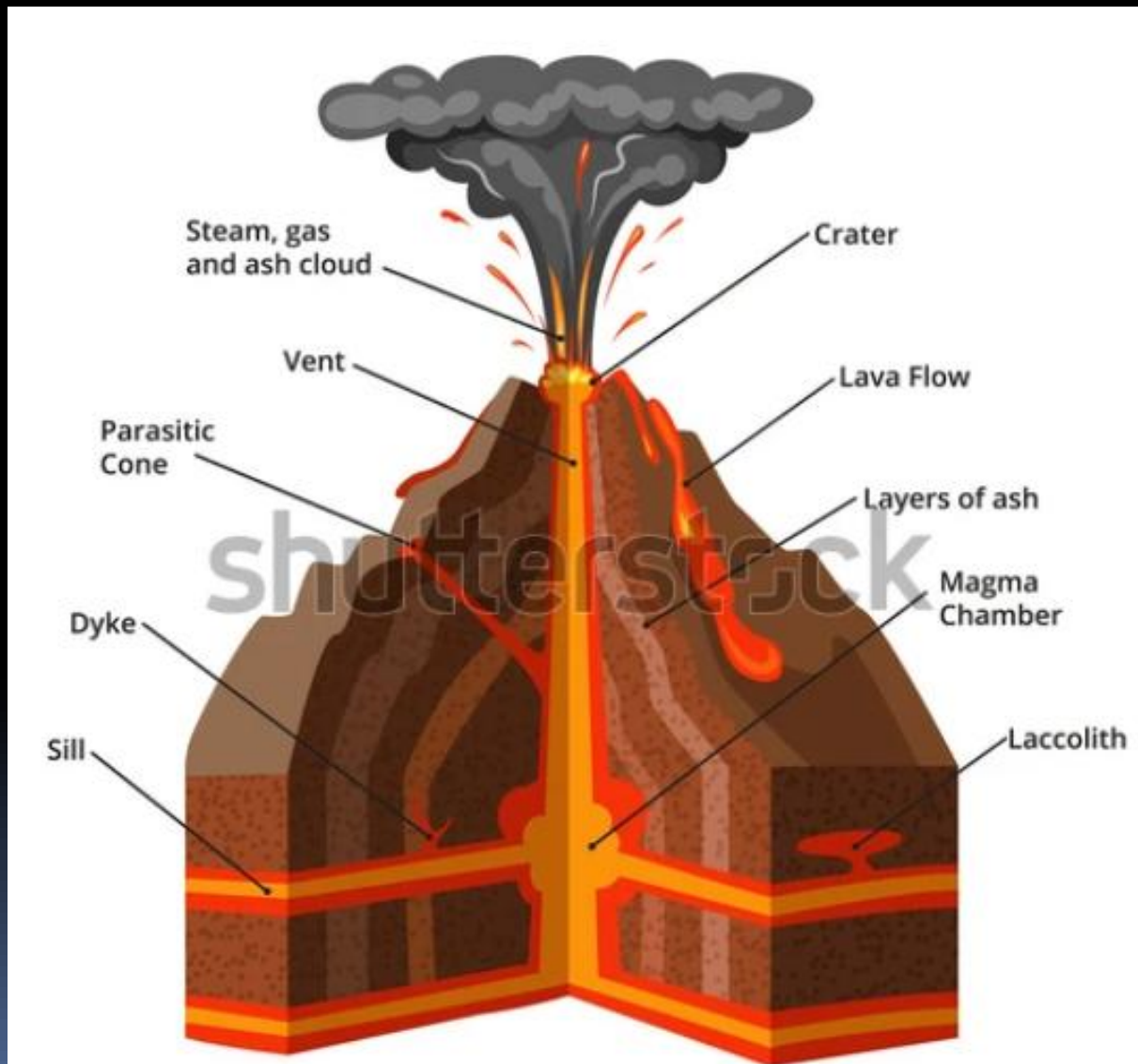
Global Seismic Zones



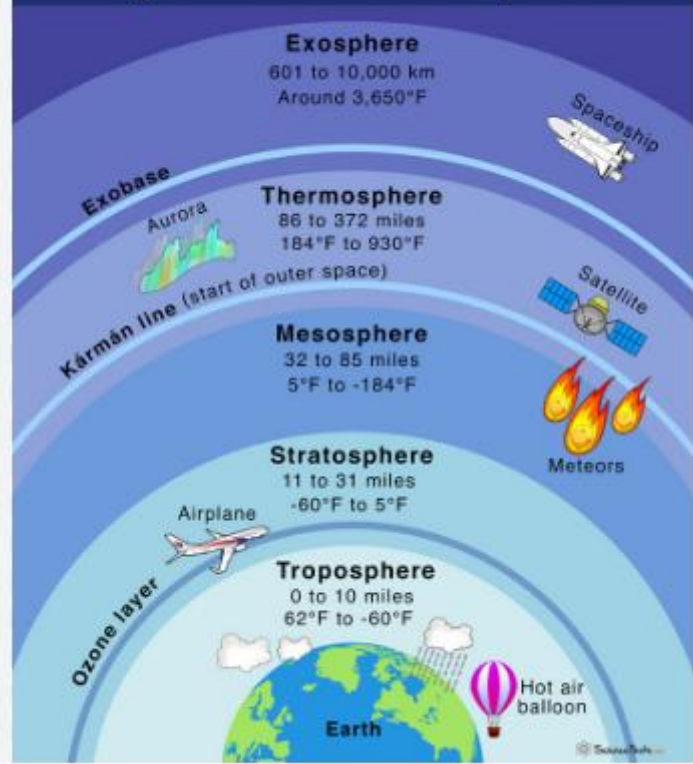
Seismic Zones: India



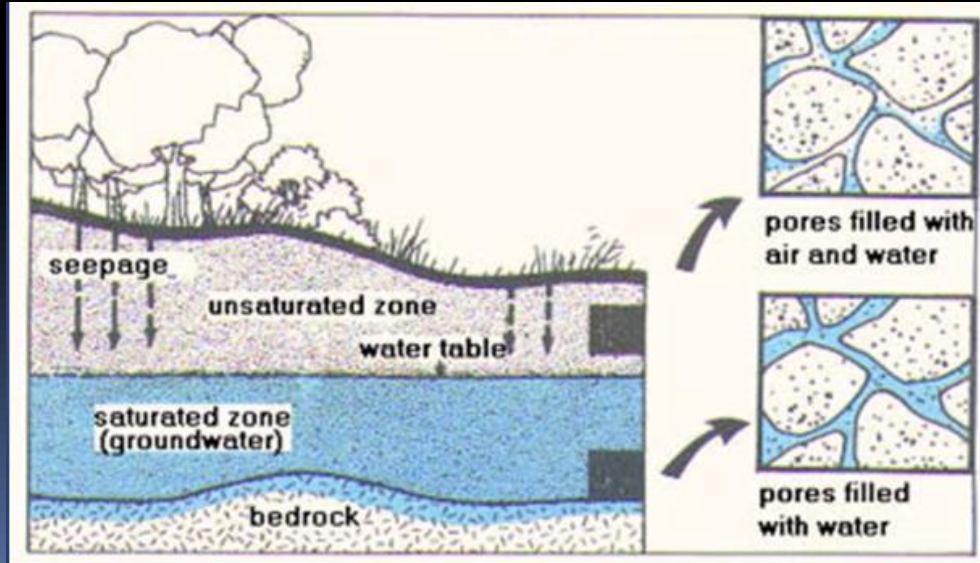
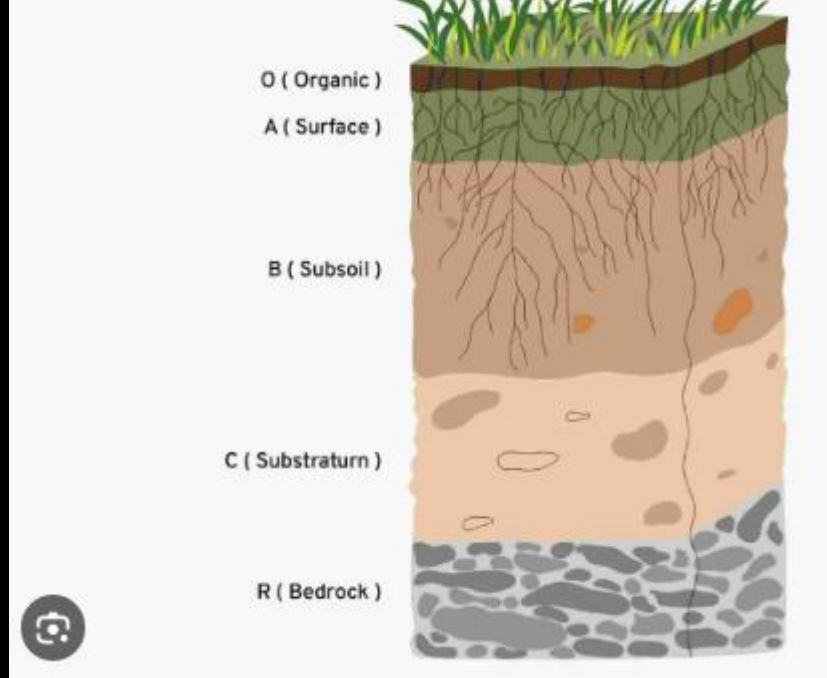
Structure of Volcano

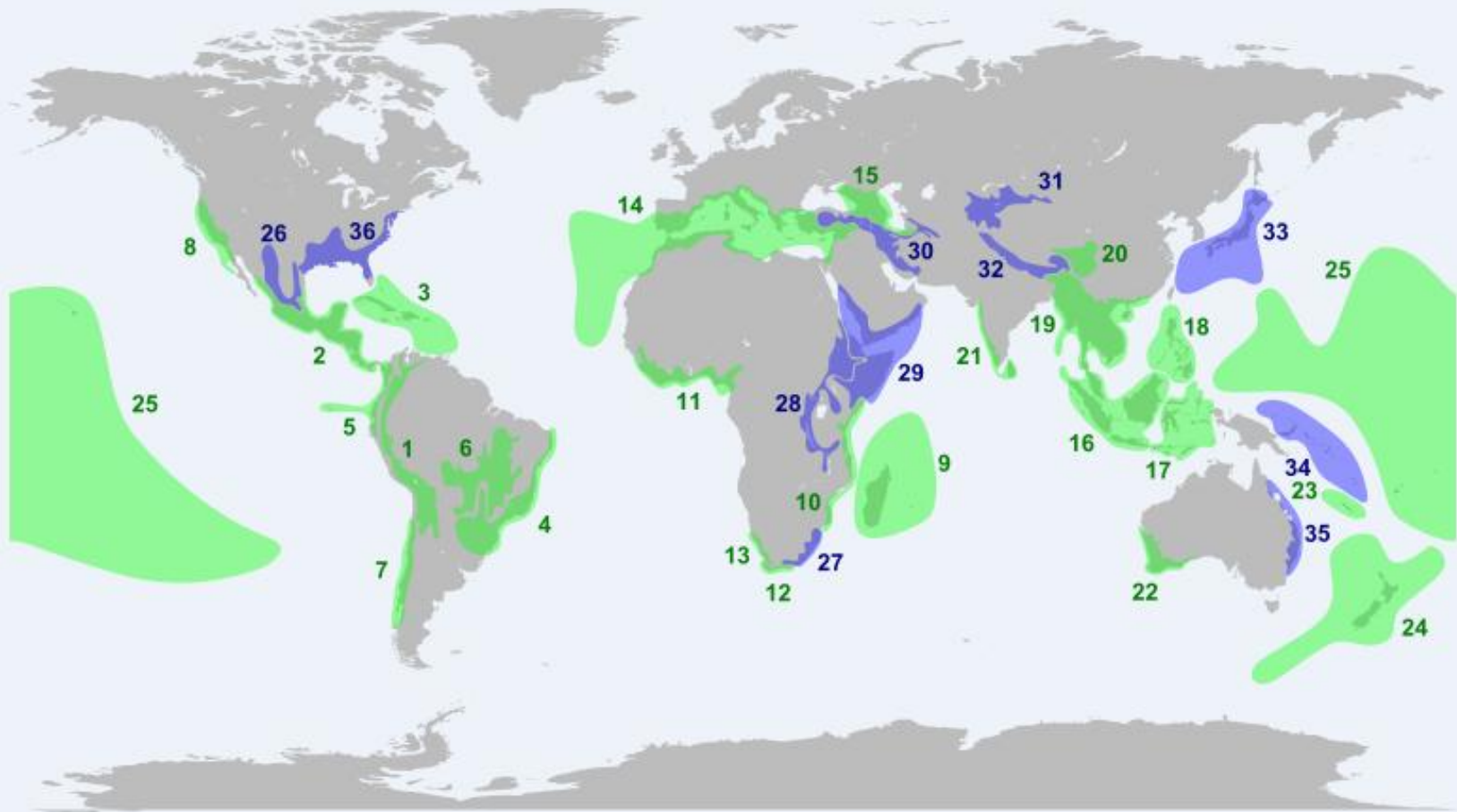


Layers of the Atmosphere



Horizons of the Soil





HOLOARCTIC REGION

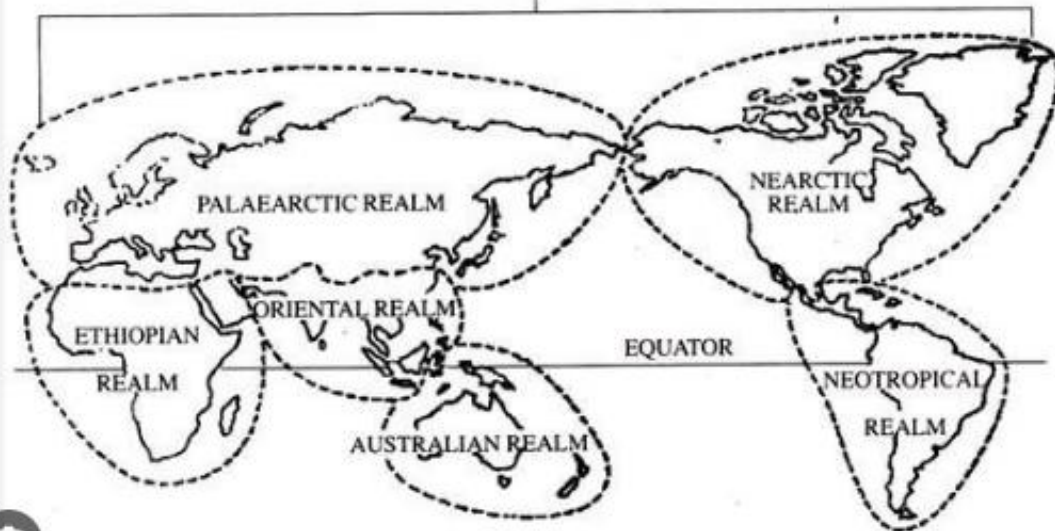
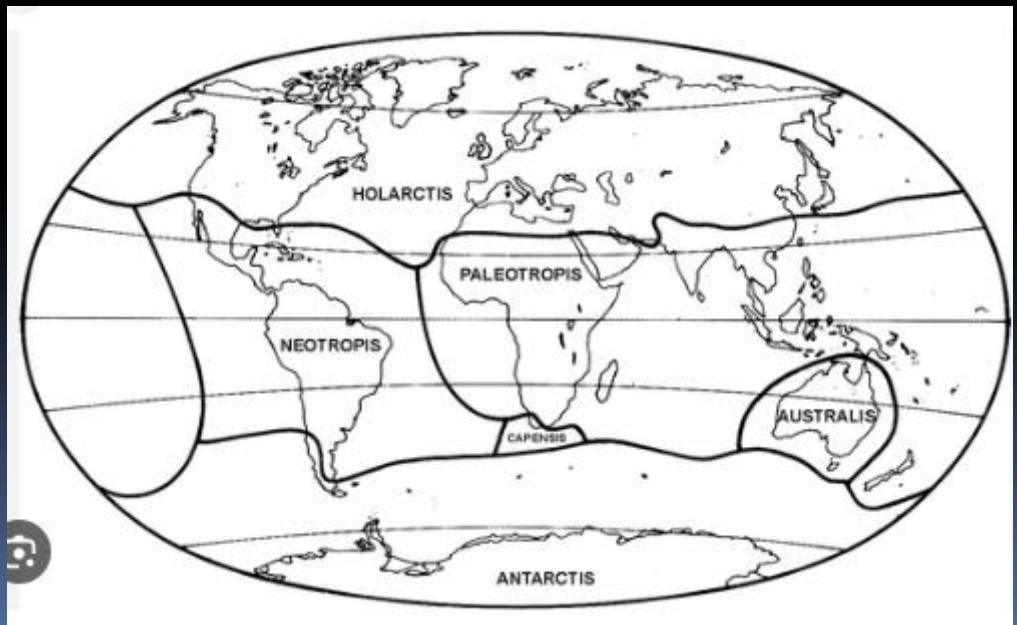
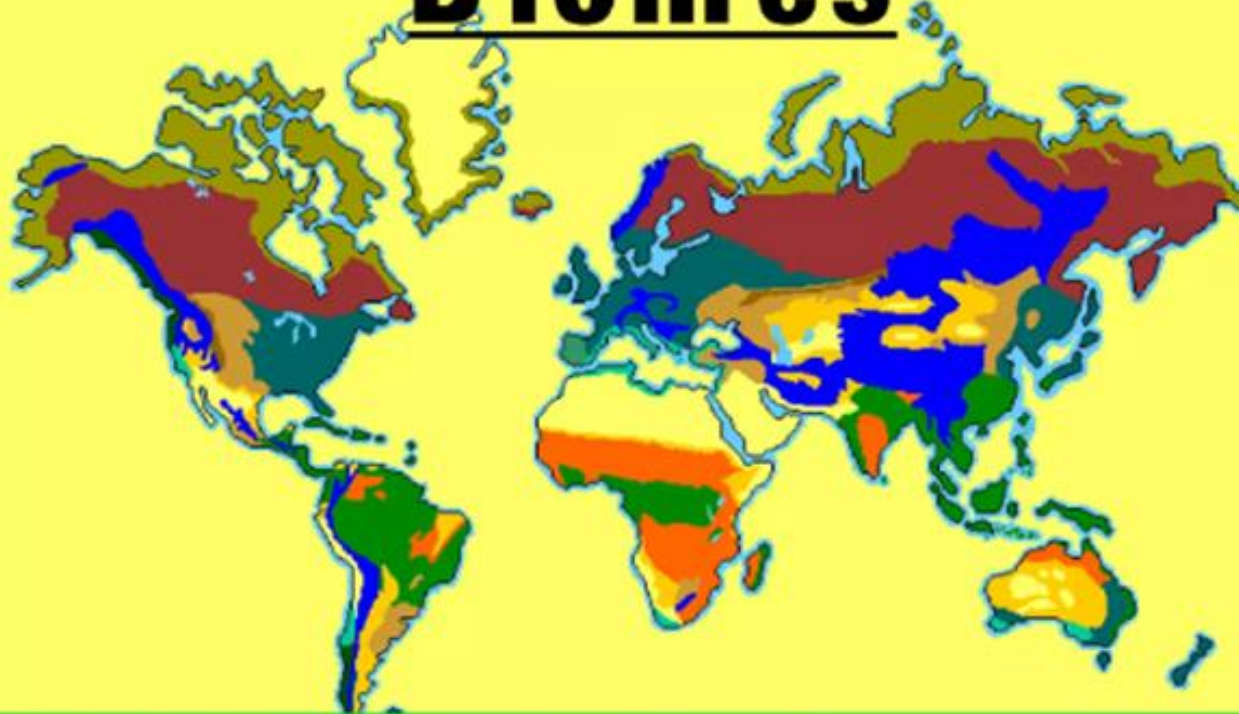


Fig. 4.34 : Zoogeographical realms of the world.



Biomes



The World's Major Communities