

Welland Gouldsmith School, Patuli

Class IX-Geography

Online Work sheet No.1/ 2020-2021

CHAPTER 1: EARTH AS A PLANET

Synopsis :

We begin this chapter by revising some foundational Geographical concepts related to the Universe. What is a :galaxy, solar system, orbit; the general divisions of the Inner and Outer planets and that every planet except for Mercury and Venus have satellites, which are also called moons.

We then learn *eight conditions which make the Earth a unique planet:*

- (i)Optimum distance of 148 km away from the sun
- (ii)Suitable average temperature of 17⁰ C.
- (iii) The three domains of the Earth and the Biosphere
- (iv)Favourable environmental conditions to support life forms
- (v)Insolation and terrestrial radiation
- (vi)Presence of water and the Hydrological Cycle

The hydrological cycle takes place through the *evaporation* of water (from oceans, seas, gulfs, bays, lakes, rivers, transpiration of trees) which rises as water vapour in the atmosphere. *Condensation* occurs when the droplets of water vapour form clouds. The clouds lose their water through various forms of *precipitation* (rain, snow, hail). The water that falls to the earth due to precipitation is either absorbed by the soil or flows into a water body such as a river, sea, and so on. Thus the cycle continues!

- (vii)Presence of the atmosphere
- (viii)Presence and function of the ozone layer

Followed by nine proofs which convince us of the spherical shape of the Earth:

- (i) The Sun and other planets
- (ii) Sunrise and Sunset
- (iii) The Circular Horizon
- (iv) The Earth's circular shadow
- (v) The sighting of a ship
- (vi) The Pole Star
- (vii) Circumnavigation
- (viii) The Bedford Canal Experiment
- (ix) Recent photographs of the Earth

Then we learn about the Earth as the home of Humankind by understanding important keywords and concepts:

The domain of land is called the *Lithosphere*

The domain of water is called the *Hydrosphere*

The domain of air is called the *Atmosphere*

The environment has two components : *Biotic* (the living components) & *Abiotic* (the non-living components)

The *Biosphere* is the narrow zone of contact between land, water and air where all life forms exist.

The extent of the Biosphere is 15 km thick and it is home to an estimated 1.5 million different species of organisms.

Every organism in the Biosphere is influenced by and in turn influences the biotic and abiotic components of the Biosphere through numerous interactions.

The Biosphere provides all life forms with the nutrients and resources needed for their survival, hence it is important to conserve these resources.

Assignment :

Q1)

(a) What is a galaxy? To which galaxy does our Sun belong?

(b) Name two Inner and two Outer planets.

(c) State two conditions which make the Earth a unique planet. (Answer in points- (i) & (ii) briefly)

(d) Give one reason why nitrogen and carbon dioxide are needed by plants.

Q2)

(a) Which layer protects the Earth from the ultraviolet rays of the Sun? In which domain of the Earth is this layer found?

(b) Define the term 'Biosphere'? What does the Biosphere provide all life forms with?

(c) Mention two proofs which have convinced us that the Earth is spherical. (Answer in points- (i) & (ii) briefly)

(d) Briefly explain the Hydrological cycle. (Refer to synopsis)

Please download a sample of the Class IX, council question paper from the following link :

<https://cisce.org/pdf/Class-IX-Specimen-Question-Papers-2019/Geography%20Paper%202.pdf>