

CH THE ORIGIN AND EVOLUTION OF THE EARTH

(Notes)

Solar system

- Solar system consists of eight planets.
- Mercury, Venus, Earth, Mars, Jupiter, Uranus, Saturn and Neptune.
- The inner planets are Mercury, Venus, Earth, and Mars.
- After an asteroid belt come the outer planets, Jupiter, Saturn, Uranus, and Neptune.

The Moon

- The moon is the only natural satellite of the earth.

Evolution of the Earth

- The age of Earth is approximately one-third of the age of the universe.
- Earth formed around 4.54 billion years ago by accretion from the solar nebula.

Lithosphere, Atmosphere, and Hydrosphere of the Earth

- **Lithosphere: The firm outer part of the earth, comprising of the crust and upper mantle.**
- **Atmosphere:** A layer of gases encircling a planet that is seized in place by the gravity of that body.
- **Hydrosphere:** It is the collective mass of water found on, under, and above the surface of the earth.
- **The first stage of the evolution of Lithosphere, Atmosphere, and Hydrosphere is marked by the loss of the primordial atmosphere.**
- In the second stage, the hot interior of the earth contributed to the evolution of the atmosphere.
- **Finally, the composition of the atmosphere was modified by the living world through the process of photosynthesis.**
- The present composition of earth's atmosphere is chiefly contributed by nitrogen and oxygen.