



Lesson1

The Earth in the Solar System

NOTES: -

- The Earth is our habitat and it was formed about 4600 million years ago.
- Stars have their own light and heat. The sun is also a star. It is made up of hot, gaseous matter. It is the nearest star to the earth.
- Planets have no light of their own. Our earth is a planet. It is the third nearest planet to the sun.
- A group of stars that forms a definite pattern is called constellation. The constellation bearing question mark of seven stars is called **Ursa Major** or **the Great Bear**.
- The sun, the moon, the stars and all objects in the sky are called **heavenly** or **celestial bodies**.
- The science of studying stars and other heavenly bodies of the universe is called **Astronomy**.
- **The Pole Star** or **Polaris** indicates the north because it shines directly above the North Pole of the earth. In olden days before the invention of compass needle, people used to determine directions with the help of this star.
- The sun, the planets, satellites, asteroids, comets and meteoroids form the **Solar system**. The solar system is a part of the Milky Way galaxy.
- A galaxy or the Milky Way is a huge system of stars. It contains millions of stars. It is known as **Ningthou Turel** in Manipuri.
- The sun and the planets were formed out of a moving cloud of gas and dust called Nebula.
- The central path of the nebula became **the sun**. The remaining materials were condensed into balls of gas and dust. Later, they became planets.
- The path in which planets move around the sun is called orbit.
- **The Earth** is our planet. The earth is unique because it is the only planet where we find living beings.

- Our earth is made up of land and water. But the portion of water is much larger than the land portion. Because of this, the earth appears blue in the photographs taken from space. So, it is also called **the blue planet**
- The earth takes 365 days and 6 hours to complete a full journey round the sun.
- Satellites are the heavenly bodies that move around the planet. They do not have light of their own.
- The moon is the only satellite of the earth. The moon is about 3,84,400 kilometres away from the earth.
- The moon spins on its own axis and it revolves round the earth. Every time it circles the earth once, it spins on its axis. The moon takes almost the same time i.e. 27 days and 8 hours to complete both the movements.
- The moon has no light of its own. It shines because it reflects light from the sun.
- The changing shapes of the moon is called the **phases of the moon**.
- **Asteroids** are numerous small bodies which revolve round the sun. It lies between the orbits of Mars and Jupiter. They are thought to be the parts of some exploded planets.
- The largest asteroid is **Ceres**.
- **Meteoroids** are the small pieces of rocks which move around the sun.
- **Meteors or shooting stars:** When meteoroids enter the earth's atmosphere, they get heated by friction and burn themselves. Thus we see **meteors or shooting stars**.
- **Meteorites:** Meteors that fall to the earth without being completely burnt are known as **Meteorites**. **Meteorites** create large craters on the earth's surface.

