

Earth In The Solar System

All these objects – the sun, the moon and millions of bright objects seen during the night, that belongs to the sky are called **CELESTIAL BODIES**. These are also called **HEAVENLY BODIES**. The earth on which we live is also a celestial body.

Some celestial bodies do not have their own hear and light. They only reflect the light which they receive from a star like the sun. These are called **PLANETS**.

The word 'Planet' means **wanderer**. Our earth is also a planet which receives its light and heat from the sun.

Different groups of stars form various patterns and they are called constellations. Saptarshi is an example of constellations.

THE SOLAR SYSTEM

The sun and the eight planets make up the 'Family of the sun' or the Solar System. They are small celestial bodies revolving round the planets. They are called **Satellites**.

There are 49 satellites in our solar system. Except Mercury and Venus, all the other planets have one or more satellites. Like planets the satellites too have no light of their own. They just reflect the light received from the sun.

THE SUN

The sun is in the centre of the solar system. It is the biggest member of the family. The sun is about 150 million kilometres away from the earth. Light travels with a tremendous speed of about 300,000 kilometre per second. Yet, even with this speed, the light of the sun takes about eight minutes to reach the earth.

PLANETS

There are eight planets in our solar system. In order to their distance from the sun, they are: Mercury,

Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.

All the eight planets of the solar system revolve around the sun counter clockwise in elliptical paths known as **Orbits**.

Since, Mercury is nearest to the sun, it takes only about 88 days to complete one revolution. Our earth revolves once in about 365 days and 6 hours.

ASTEROIDS

Between the orbits of Mars and Jupiter, there is a swarm of small bodies which also revolve round the sun. They are called **Asteroids**.



THE EARTH

The earth is our planet. It is the third nearest planet to the sun in size, it ranks fifth. Like other planets, the earth is also a sphere. It is slightly flattened at the poles. In size and shape the earth is almost identical to Venus. It is the only known planet of the solar system where life is possible.

The curvature of the earth is quite clear in the northern part. Because of presence of water, moderate temperature and moderately dense atmosphere containing gases useful in supporting life on the earth. the earth appears blue in colour. It is because of the presence of water. About 74% of the surface of Earth is covered by liquid or frozen water. It is, therefore, also called **a blue planet**.

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The outside of the Earth is not even. There are high places called **mountains**, and high flat places called **plateaus.** There are low places called **valleys and canyons**.

The interior of the earth is made up of several concentric layers of which the crust, the mantle, the **outer core and the inner core** are significant because of their unique physical and chemical properties. The crust is a silicate solid, the mantle is a viscous molten rock, the outer core is a viscous liquid, and the inner core is a dense solid.

THE MOON

Our earth has only one satellite, i.e, the moon. The diameter of the moon is only one-fourth of that of the earth. It appears so big because it is very close to us. It is about 385,000 kilometres away from us. The light reflected by the moon reaches us in just one and a quarter second. The moon revolves round the earth in about 27 days and 8 hours.

Galaxy: A family or system of millions and millions of stars. Like our solar system, millions of star systems make one galaxy. The name of our galaxy is the MILK WAY.

Universe: The vast and infinite space having millions of galaxies. The distance in the universe light travels in one year. the light of the nearest star (Proxima Centauri) to the sun reaches us in about four years.