

SCIENCE

SOLAR SYSTEM

THE SOLAR SYSTEM

The Sun and the celestial bodies which revolve around it form the solar system. It consists of large number of bodies such as planets, comets, asteroids and meteors. The gravitational attraction between the Sun and these objects keeps them revolving around it. The Earth, as you know, also revolves around the Sun. It is a member of the solar system. It is a planet. There are seven other planets that revolve around the Sun. The eight planets in their order of distance from the Sun are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Let us know about some members of the solar family.

The Sun

The Sun is the nearest star from us. It is continuously emitting huge amounts of heat and light. The Sun is the source of almost all energy on the Earth. In fact, the Sun is the main source of heat and light for all the planets.

The Planets

The planets look like stars, but they do not have light of their own. They merely reflect the sunlight that falls on them. Can you distinguish between planets and stars? The simplest method of identifying planets from stars is that stars twinkle, whereas planets do not. Also the planets keep changing their positions with respect to the stars. A planet has a definite path in which it revolves around the Sun. This path is called an orbit. The time taken by a planet to complete one revolution is called its period of revolution. The period of revolution increases as the distance of the planet increases from the sun.

Besides revolving around the Sun, a planet also rotates on its own axis like a top (Fig. 17.19). The time taken by a planet to complete one rotation is called its period of rotation.

Some planets are known to have moons/satellites revolving round them. Any celestial body revolving around another celestial body is called its satellite. The Earth can be said to be a satellite of the Sun, though generally we call it a

planet of the Sun. We use the term satellite for the bodies revolving around planets. Moon is a satellite of the Earth. There are many man-made satellites revolving round the Earth. These are called artificial satellites.