

Differentiate between the following.

1. The four inner planets are Mercury, Venus, Earth and Mars. The inner planets are also known as terrestrial planets. They are comparatively smaller than the outer planets. The inner planets are mostly made up of rock and metal.

The four outer planets are Jupiter, Saturn, Uranus and Neptune. The outer planets are also known as 'Gas giants'. Compared to the inner planets, these are much larger in size. They are made mostly of hydrogen, helium and other gases. This means that there is no solid surface on these planets.

2. An asteroid is a large rock in outer space. Some asteroids are big in size, whereas others are as small as a grain of sand.

People commonly call meteors as "shooting star". Shooting stars are actually meteors. Meteors are chunks of rocks or metal that fall from space. Most meteors come from the asteroid belt.

Short answer questions

1. While going around the Sun, the planets also spin on their own axis. This is known as 'Rotation'.
2. Movement of planets around the Sun in a fixed path is called 'revolution'.

3. An asteroid is a large rock in outer space. Some asteroids are big in size, whereas others are as small as a grain of sand.
4. The vast empty space around us along with everything that it has, constitutes the 'Universe'. The universe includes everything that exists like galaxies, Sun, stars, planets, asteroids, comets, meteors and meteorites. No one knows the size of the universe. The astronomers believe that the universe is still growing outwards in every direction.
5. A planet is a celestial body that revolves around a star having force of gravity. The Sun sits in the middle while the eight planets travel around it. Planets do not have light of their own. However, when the Sun's light falls on them, they reflect it.
6. A moon is defined as an object that orbits a planet. It can also be called our planet's natural satellite. Most of the planets in our Solar System have moons. The Earth has only one natural satellite – the Moon.
7. **Neptune:** Neptune is the eighth planet from the Sun. It is the smallest of the four gas giants. This planet is also known as the 'windy planet'. In fact, one of its storms is called the "Great Dark Spot" because it appears as a dark spot on the surface of the planet.
Jupiter: Jupiter is the fifth planet from the Sun. It is the largest planet of our Solar System. It is a large ball of gas with no solid (land) surface. This planet is seen with a characteristic 'red spot'. The red spot is actually high pressure storms in that area.
Saturn: Saturn is the sixth planet from the Sun. It is also the second largest planet of our Solar System. It is identified by its 'rings'. Saturn has thousands of thin rings around it, made up of particles of rock and ice.
Mars: Mars is the fourth planet from the Sun. It is often called the "red planet". This is because it appears red in colour.
8. Mercury is the planet closest to the Sun. That's the reason why it is known as hot planet. It is also the smallest planet of our Solar System. The days are extremely hot
9. The four outer planets are Jupiter, Saturn, Uranus and Neptune. The outer planets are also known as 'Gas giants'. Neptune is the smallest outer planet.
10. Our Earth is a unique planet. It is the only planet known to man that has the right proportions of water and oxygen which is important for living organisms to thrive. Its distance from the Sun makes it neither too hot nor too cold. Infact, it is the only planet known in our Solar System which has life. Earth takes 24 hours to complete one rotation and 365 days and 6 hours to complete one revolution.
11. Neptune is also known as the 'windy planet'. In fact, one of its storms is called the "Great Dark Spot" because it appears as a dark spot on the surface of the planet. Neptune has white clouds that look like stripes. A rapidly moving cloud in the Neptune's atmosphere has been named 'Scooter'.
12. 'Milky Way' means galaxy of stars.
13. The elliptical path in which planets move around the Sun is called orbit.

Long answer questions

1. Solar System is made up of the Sun and the other celestial bodies, like planets and their satellites (moon), asteroids, meteorites, space dust, etc. The term 'celestial body', means any natural body which is present in the sky.

Sun: Everything in our Solar System orbits around the Sun. The Sun is huge in size. Because of its massive size, it exerts a lot of pull (called gravitational pull) on the planets, enough to make them orbit around it. The sun is a huge ball of gas made up of hydrogen and helium. It is always burning and is very hot. The temperature of the outer surface of the Sun is 11,000 degrees Fahrenheit. Sun is so big that about one million Earth-sized planets could fit inside it.

Planets: The word 'planet' is derived from a Greek word, which means 'wandering star'. A planet is a celestial body that revolves around a star having force of gravity. The Sun sits in the middle while the eight planets travel around it. Planets do not have light of their own. However, when the Sun's light falls on them, they reflect it. Planets move around the Sun in a fixed elliptical path, called 'orbits'. This movement of planets around the Sun in a fixed path is called 'revolution'. While going around the Sun, the planets also spin on their own axis. This is known as 'rotation'.

There are eight planets in the Solar System. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Earth is the third planet from the Sun.

2. All of us are familiar with the sight of a sudden flash of light across the night sky. People commonly call it "shooting star". Shooting stars are actually meteors. Meteors are chunks of rocks or metal that fall from space. Most meteors come from the asteroid belt. A small number of meteors are made from particles from other planets. The Earth's atmosphere protects it from these rocks. If we did not have the atmosphere, these rocks would have fallen on the surface of the Earth. When the meteor passes through the Earth's atmosphere, it burns. That is why we see the light. However, sometimes they do not burn completely. In such cases, they fall on the Earth. These are known as meteorites. Many meteorites have been found on Earth. They are named after the place they are found.