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Class : VISubject : Social ScienceTopic : GeographyChapter 1

Introduction

- The sun, the moon, the stars and the planets, including the earth, are **celestial bodies.**
- Stars which can be recognized by the shape they form, are called **constellations**.
- The sun is in the center of the solar system. It is made up of extremely hot gases. The sun is about **150 million km away from the earth.**
- There are **eight planets** in our solar system. The planets are Mercury, Venus, Earth, Mars, Jupiter, Uranus and Neptune.
- The planets have two types of motion revolution and rotation.
- All planets revolve around the sun in the **anticlockwise direction** on its orbit. Apart from revolving around the sun, each planet spins, or rotates, about its axis .
- The amount of heat a planet receives from the sun depends on its distance from the sun.
- The Earth is surrounded by a layer of gases. This layer of gases is called its **atmosphere**.
- Satellites, or moons, of planets are small celestial bodies which revolve around planets.
- The **moon** is the largest and brightest thing in the night sky. The sun always lights up one side of the moon. But as the moon moves around the earth, we only see parts of this side. These are called **phases of the moon**.
- An object designed to revolve around the earth or any other heavenly body is called an **artificial satellite**.
- A **dwarf planet** is a spherical celestial body that orbits the sun. It is much smaller than a planet.
- The small celestial bodies revolving around the sun between the orbits of Mars and Jupiter; they are called **asteroids or minor planets.**
- Small pieces of rock and dust that revolve around the sun are called **meteoroids**, and when these small pieces burn up while entering up into earth's atmosphere are called **meteors.**

Questions and Answers

B. Answer the following questions in not more than 20 words.

1. What is a constellation ?

Ans. Of the millions and millions of stars in the sky, some appear to be in groups, forming definite patterns. These groups, which can be recognised by the shapes they form, are called constellations.

2. What is a galaxy ?

Ans. Stars are not uniformly distributed in the universe. They occur in groups. Millions of stars together form a group called galaxy.

3. How long does the moon take to go around the earth once ?

Ans. The moon revolves around the earth once in 27 days and 8 hours. During this period, it also rotates, or spins, about its axis once.

4. What is an artificial satellite ?

Ans. An object designed to revolve around the earth or any other heavenly body is called an artificial satellite.

5. What are asteroids ?

Ans. Thousands of small celestial bodies revolve around the sun between the orbits of mars and Jupiter. These are called asteroids or minor planets.

C. Answer the following questions in not more than 40 words.

1. Why were the pointers important to navigators ?

- **Ans.** (i) The two stars called pointers, at the head of the Big Dipper, always point towards the pole star.
 - (ii) The pole star, which is also known as the North star or Polaris, is almost directly above the North Pole.
 - (iii) This helped navigators determine the north direction before the invention of the magnetic compass.

2. What is the Milky Way ? What is the Milky Way Galaxy ?

- Ans. (i) On a clear night, we tend to see a faint band of light in the sky. This is called the Milky Way or Akashganga.
 - (ii) The Milky Way is a band of stars in our galaxy.

3. How can you recognize the planets Venus, Mars and Saturn in the sky?

Ans. Venus is the brightest planet. Mars looks red and is the called the red planet. Saturn is having rings around the planet.

4. What are shooting stars ?

Ans. (i) Small pieces of rock and dust revolve around the sun. They are called meteoroids.

- (ii) When meteoroids enter the earth's atmosphere, they start burning.
- (iii) These burning pieces cause a flash of light as they fall, and we call them shooting stars or meteors.
- (iv) Most meteors burn up completely while falling.

D. Answer the following questions in not more than 80 words.

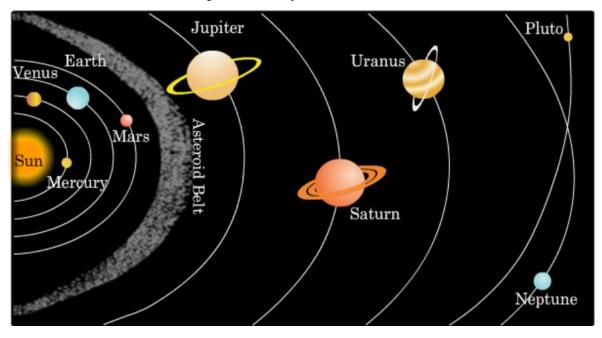
1. What does the solar system consist of ? Draw a diagram of the solar system.

Ans. (i) The earth and seven other planets move around the sun.

(ii) Apart from the planets, celestial bodies like dwarf planets, asteroids, comets and meteoroids move around the sun.

(iii) Some planets and other celestial bodies have moons, or satellites, moving around them. Moons also go around the sun.

(iv) The sun, the eight planets, the moons and the other celestial bodies that move around the sun make up the solar system.



2. Explain the types of motions of planets.

Ans. The planets have two types of motion – revolution and rotation.

• Revolution –

(i) All planets revolve around the sun in the anticlockwise direction. Each planet revolves in its own slightly elliptical path called orbit.

(ii) Example- Mercury is closest to the sun, it has the shortest orbit. Therefore, it takes the least time (88 days) to complete one revolution.

• Rotation :-

(i) Apart from revolving around the sun, each planet spins , or rotates, about its axis. The earth's axis is the imaginary line joining the North Pole and the South Pole through the centre of the earth.

(ii) Example- Sun rises from the east and sets in the west.

3. Why is life found only on the earth ?

Ans. Life found only on the earth because of the following reasons :-

(i) The earth has an average temperature of 22 degree Celsius. This temperature is suitable for plants and animals.

- (ii) The earth is the only planet on which liquid water is found.
- (iii) The earth is surrounded by a layer of gases. This layer of gases is called its at atmosphere. Animals need oxygen to breathe. This gas is found in the earth's atmosphere .
- (iv) Plants need carbon dioxide to make food. This gas is also present in our Atmosphere.
- (v) The earth's atmosphere has a gas called ozone. This protects plants and Animals from certain harmful rays of the sun.

4. Explain the phases of the moon.

Ans. (i) The sun always lights uo one side of the moon. But as the moon moves around the earth, we only see parts of this side. These are called phases of the moon.

(ii) The moon appears as a full disc when we see the whole lit up side. This is called full moon, or purnima.

(iii) When the part facing us does not receive sunlight, we cannot see the moon. This is known as the new moon or amavsya.

(iv) The crescent grows larger as days pass, till the full moon appears.

(v) The new moon takes about fifteen days for the full moon to appear.

