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| **SOCIAL STUDIES**    **GRADE: VI DATE:30.6.20**  **GEOGRAPHY**  **1.The Earth And the Solar system**  **I.DEFINE THE FOLLOWING**  **1.Universe** |  |  |  |

The term 'universe' implies to almost everything that exists in the outer space. It is still a mystery as to how it was formed, but the most prevalent theory is that the universe emerged after the Big Bang. It consists of a large number of galaxies, which further comprise planets, meteors, comets, satellites, etc.

**2. Milky Way**

The universe consists of a large number of galaxies. Our solar system is found in the Milky Way galaxy. It is also known as Akash Ganga, as it appears to be white in colour. It is believed that our galaxy is home to almost 10,000 stars.

**3. Light year**  
  
 Ordinary units of measurement are not used for measuring distance in the universe. Light-year is used as a measure of distance that is equal to the distance covered by light travelling at a speed of 3,00,000 kilometres per second in one year.

**4. Nebula**  
 A cloud of gas and dust particles of which a star is made is known as a nebula. Nebulas are very large bodies that possess their own light. They appear to be dot-like figures in the night sky, as they are very far from the Earth's surface.

**5. Inner planets**  
  
 The first four planets of the solar system, i.e. Mercury, Venus, Earth and Mars, are known as inner planets. They are made up of hard rock materials. Hence, they are also termed terrestrial planets.

**6. Gas giants**  
  
 Saturn, Jupiter, Uranus and Neptune are known as outer planets or gas giants. They are called so because they are made up of gases. They have been categorised so because they share common properties.

**7. Blue planet**  
  
 The Earth is known as the Blue Planet or the Water Planet. It is called so because when the astronauts first saw the Earth from space, it appeared blue in colour because of the presence of water on it.

**8. Asteroids**  
 Asteroids are small solid objects that orbit the Sun. They are also known as planetoids or minor planets. There are millions of asteroids found between the orbits of Mars and Jupiter.

**9. Meteors**

A meteor is a small piece of rock revolving around the Sun in its orbit. When it enters the Earth's atmosphere, it lights up and start burning. Hence, it is also called a shooting star. It forms a crater when it hits the surface. One such crater was found in Arizona, USA.

**10. Comets**  
 Comets are huge masses of snow and rocks that orbit the Sun. They have huge glowing tails. Halley's Comet was last seen in 1986; it appears after a period of every 76 years. There are around 200 crore comets in our solar system.

**11. Constellations**

A constellation is a group of stars in a particular pattern. In ancient civilisations, people saw these constellations as figures of objects, animals, beasts, etc. These constellations had a considerable influence on the lives of the people. The positions of the constellations were used to direct the activities of the people like harvesting, planting and slaughtering

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**12. Saptarishi**

The constellation that is most visible to our naked eyes is Saptarshi. It is a group of seven stars. It was used in ancient times to find directions. The Pole Star, which represents the north direction, can be easily located with the help of Saptarshi. Hence, in earlier times, it was easy to locate directions without the help of a compass.

**II.ANSWER THE FOLLOWING**

**1. How is the earth a unique planet is the solar system**.

The Earth is a unique planet because of the following reasons:  
1. It is at optimum distance from the Sun; that is it is neither too far nor too close to the Sun. Hence, it supports several forms of life.  
2. Extreme temperatures are maintained as a result of the rotation of the Earth.  
3. The atmosphere of the Earth protects its surface from harmful ultraviolet rays of the Sun.  
4. Oxygen is the essential component of the atmosphere on the Earth, as it helps in supporting life on this planet.

**2. Write at least one characteristic of each planet in the solar system**.

The characteristics of the planets in our solar system are as follows:  
  
1. Mercury: This planet has no atmosphere; hence, it witnesses extreme temperatures during day and night.  
2. Venus: It has a very dense atmosphere and has no satellite.  
3. Earth: It is the only planet in our solar system that supports life.  
4. Mars: It has a reddish appearance; hence, it is also known as the Red Planet.  
5. Jupiter: It is the largest planet in our solar system with 39 moons.  
6. Saturn: It is a beautiful planet and has a large number of icy rings around the equator.  
7. Uranus: It has rings around it and 21 moons.  
8. Neptune: It is the farthest planet in our solar system and has physical features similar to those of Uranus.

**3. What is the significance of the sun in the solar system?**

Our solar system is one big family comprising the Sun, eight planets and other heavenly bodies like satellites, meteors, comets and asteroids. The significance of the Sun can be understood with the following points:  
  
1. The Sun is the major source of heat and light in our solar system. Heat and light support all forms of life on the Earth.  
2. The gravitational pull of the Sun is responsible for keeping the planets in their orbits.

**4. Describe the phases of the moon with diagram.**

The Moon is the only satellite of the Earth. It does not have light of its own, but it reflects the sunlight. The shape of the Moon changes every night. The various phases of the Moon can be understood as under:  
1.The visible portion of the Moon increases when it moves from the phase of  new moon to the phase of full moon. This is known as wax.  
2.The visible portion of the Moon decreases when it moves from the phase of full moon to the phase of new moon. It is known as wane.  
Waxing and waning constitute a phase of the moon.  
The half portion of the Moon always appears dark. Since the view from the Earth keeps on changing, we see the bright part of it.



**HOTS**

**1. Why do we always see the same face of the moon?**

The half side of the Moon appears dark, as we always see the bright part of the Moon. The reason is that both the Earth and the Moon rotate on their own axes. They have the same rotational period; therefore, we get to see only half side of the Moon.

**2. Why can the moon not support any form of life?**

The Moon does not support any form of life because it does not have an atmosphere of its own. Life-providing gases, including oxygen, are absent on the Moon. Also, there is absence of moisture and water on the Moon to support life.

**3. Why do the sun and the moon appear to be of the same size from the earth?**

The Sun is 109 times larger than the Earth and its distance is around 15 crore kilometres from the Earth. It is a very large heavenly body compared to the Moon. The diameter of the Moon is 3,480 kilometres. It is 3,84,400 kilometres away from the Earth and therefore is much closer to the Earth than the Sun. The Sun and the Moon appear to be of the same size from the Earth because although the Sun is larger than the Moon, it is farther from the Earth.