

CHAPTER NAME THE EARTH IN THE SOLAR SYSTEM

SOLAR SYSTEM - The sun, stars, planets, & satellite Asteroids, Comets and Meteor's are together known as Solar system.

Celestial bodies - All heavenly bodies are known as celestial bodies. Example sun, moon, stars.

Stars - They are heavenly bodies which have their own heat and light. The sun is our nearest star.

Constellations - Group of stars arranged in a particular pattern is called Constellation. Ex - Saptarishi, Ursa Major, Ursa Minor

Galaxies - Million of stars are together known as Galaxy. There are million of galaxies in our Universe. Our galaxy name is "Milky Way" or Akash Ganga.

ABOUT "SUN" -

The sun is a star. It has its own heat and light. It is in the center of our solar system. All the planets move around the sun in an elliptical path. Its temperature is very high that is nearly 6000°C . The light of the sun take 8 minutes and 20 second to reach the earth.

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Planets :- They are heavenly bodies which revolve around the sun. There are eight planets in our solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Some facts about the eight planets :-

MERCURY → It is the smallest and closest planet in our solar system. It takes 88 days to complete one revolution.

VENUS → It is the brightest planet. It is also known as morning and evening star. It takes 224 days to complete one revolution.

EARTH → It is the third planet in our solar system. It has air, water, soil, plants, oxygen, which are essential for life. It is the only planet which has life. That is why it is known as unique planets. It is also known as blue planet because its three fourth part contain water. It takes 365 days and 6 hrs to complete one revolution.

MARS - It is known as red planet because it contains red-oxide in the soil. It takes 687 days to complete one revolution.

JUPITER :- It is biggest planet in our solar system. It is so huge that "1300 earths" can go inside it. It takes 1186 years to complete one revolution.

SATURN :- It is the most beautiful planet in our solar system because of its rings. It takes 2946 years to complete one revolution.

URANUS :- It rotates from east to west. It takes 84 years to complete one revolution. Uranus and Venus are the only planets which rotate from east to west. All other planets rotate from west to east.

NEPTUNE :- It is the last planet in our solar system. It takes 165 years to complete one revolution.

SOME MORE DEFINITION :-

Satellite - They are heavenly bodies which move around the planets. The Earth's satellite is moon.

There are two satellites, they are artificial and natural satellite.

Ex. - Artificial satellite (INSAT and EDUSAT)
Ex - Natural satellite (Moon)

ASTERIODS - They are billion of tiny bodies which revolves around the sun. They are called asteroids or planetoids. They are mostly found in the orbit of Mars and Jupiters. Ex - Ceres.

COMETS → They are heavenly bodies which moves around the sun. They are made up of hot burning gas. They have head and tail. which glows during night. Ex - Halley comet which comes after every 76 years.

METEORIDS - They are small pieces of rocks which moves around the sun in blaze light. They are also known as shooting stars.

ABOUT MOON

1. It is our natural satellite.
2. Its distant from the earth is 3,84,000 km.
3. It revolve around the earth in 27 days.
4. It reflects the sun light and glows at night.

SOLVED QUESTIONS

Q-1 Why earth is called a ~~the~~ unique planet?

Ans - The earth is called unique planet for the following reasons :-

- (a) The earth has water which is the basic need for life.
- (b) It has oxygen which help us to breathe, without it life is impossible.
- (c) It has soil which helps the plants and trees to grow. Plant and trees provide us food.
- (d) The earth has different layers of atmosphere which regulate the temperature of the earth.
- (e) The distant of earth and sun is in such a way that it is neither too hot nor too cold.

Q- State the difference between Planet and Star.

Ans.	<u>Planets</u>	<u>Stars</u>
a.	They have no ^{heat and} light of their own.	They have their own heat and light.

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| b. They are only 8 planets in our solar system. | They are unlimited in numbers. |
| c. The earth is the only planet which has life. | Stars have no life of their own. |

UNSOLVED QUESTIONS

1. Which is the brightest planet in our solar system?
2. Which is the biggest planet in our solar system?
3. Which is the most beautiful planet?
4. How much time the sun's light take to reach the earth?
5. Give one difference between natural satellite and artificial satellite?