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Prepared on : _____

Subject: Science

L-4 Earth and its neighbours

I. Keywords

1. Exploding
2. Emerge
3. Gushing
4. Axis
5. Celestial
6. Milky way
7. Galaxies
8. Orbit
9. Revolution
10. Constellation
11. Crescent moon
12. Gibbous moon
13. Craters
14. Neptune
15. Uranus

II. Pre activity:

1. On which planet do we live?

Ans. Earth

2. What do you see in the sky during the day and at night?

Ans. Day: Clouds, sun

Night: Moon, stars

III. Short answer questions.

1. What is the path the planets use to move around the sun called?

Ans. All planets move around the sun along a fixed path called orbits.

2. How long does it take Jupiter to complete one rotation?

Ans: Jupiter is the fastest-rotating planet and takes only 10 hours to complete one rotation.

3. How long will the sun keep giving us heat and light?

Ans: The sun is estimated to exist for another 11 billion years.

IV. Long answer questions.

1. Give three differences between rotation and revolution.

Ans. **Rotation** :

1. Rotation means spinning. Earth spins like a top through a line that passes through its center known as the axis.
2. Earth takes 24 hours to complete one rotation.
3. Rotation causes days and nights.

Revolution:

1. The movement of planets around the Sun in a fixed orbit is called revolution.
2. Earth takes 365 $\frac{1}{4}$ days to complete one revolution. This period is known as a year.

3. Revolution is responsible for the changing seasons.

2. How are days and nights caused on the planet Earth?

Ans: The rotation of the earth causes days and nights.

- One-half of the Earth faces the Sun while it is rotating. This half experiences daytime.
- As the Earth continues to spin, this side begins to turn away from the Sun.
- When it is on the opposite side, it experiences night.
- At the same time, the other half of the Earth will be facing the Sun, which means it is daytime there. The Earth takes 24 hours to complete one rotation.

3. What is the solar system?

Ans The Sun and the planets together form the Solar System. Our solar system has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Planets do not have their light. They reflect the sunlight that falls upon them.

4. Why is there life on planet Earth?

Ans. Earth is unique as it is the only planet with life on it. The main reasons for the Earth to support life are:

- The Earth receives the right amount of heat from the Sun, neither too hot nor too cold.
- The Earth has a layer of air around it. The useful ones are absorbed.
- The Earth has water for the survival of life.

5. Define the phases of the moon.

Ans. The moon changes its position just like the Earth. That is why the moon appears different every night. These different appearances of the moon are known as the phases of the moon.

6. Write a short note on constellations.

Ans. A cluster of stars forms a shape or a pattern in the sky. This pattern is called constellation. There are about 88 known constellations.

V. HOTS

1. Why do planets near the sun orbit faster than the ones far away?

Ans. Planets revolve around the sun because the gravity of the sun keeps them in their orbits; thus, the closer a planet is to the sun, the stronger the Sun's gravitational pull on it and the faster the planet moves.

VI. Post activity: Draw and label the solar system.

Subject Teacher

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