

Subject- S.S.T

Class-6 Topic- Our Earth and The Solar system
Learn and Write

C. Long Answer Questions

1. Which planet in the solar system supports life? How?
2. Discuss the salient features of our planet Earth.
3. What are planets? List all the planets according to their distance from the Sun and write their distinctive features.
4. What do you understand by the terms 'waning' and 'waxing'?

D. HOTS (Higher Order Thinking Skills) Questions

1. How does an artificial satellite differ from a natural satellite?
2. Why can the moon not support life?

C. 1. The Earth is the only planet that supports life because it is at the most suitable distance from the Sun. Due to this, it has a moderate temperature. Presence of water is most essential for supporting life on this planet. Our Earth is surrounded by a blanket of air called atmosphere which contains gases like oxygen, nitrogen and carbon dioxide which are necessary for life. The atmosphere also protects us from harmful ultraviolet radiation coming from the Sun, as well as it stops the heat of the Earth from escaping into outer space. It keeps our planet warm and suitable for living beings.

2. (a) Earth is the fifth largest planet of our solar system and is the third planet from the Sun.

- (b) It is the only planet that supports life.
 - (c) It has a moderate temperature.
 - (d) It has water.
 - (e) It is surrounded by a blanket of air called atmosphere which has gases necessary for life. The atmosphere protect us from the harmful ultraviolet radiations coming from the Sun.
 - (f) The Earth is bulging at the Equator and of flattened at the Poles.
3. Planets are celestial bodies that do not have their own source of heat and light. They are spherical in shape and revolve around the sun in fixed paths.

According to their distance from the Sun the eight planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

- (a) Mercury is the closest planet to the Sun. It has no moon. It takes 88 days to complete one revolution around the Sun. Its temperature varies from 427°C in the day to -183°C during night.
- (b) Venus is the brightest and hottest planet in the solar system. It has no moon. Its size is nearly equal to that of the Earth.
- (c) Earth is the only planet that supports life. It has moderate temperature, has water and an atmosphere containing life supporting oxygen, nitrogen, and carbon dioxide gases.
- (d) Mars is known as the Red Planet due to the presence of iron oxide on its surface. It has two moons called Photos and Deimos.
- (e) Jupiter is the largest planet and a large part is made up of gaseous material. It has 66 known moons revolving around it.
- (f) Saturn has bright rings around its equator. These rings are made up of icy particles, dust and gases. It has 62 known moons.
- (g) Uranus has rings around it. It has 27 known moons and is mostly made up of ice.

4. (a) When the moon travels from the full moon to the new moon phase, the visible portion decreases and the moon is said to be 'waning'.
- (b) When the moon travels from the new moon to the full moon phase, the visible portion increases. This is called 'waxing' of the moon.

E.

Artificial Satellite	Natural Satellite
1. They are man-made and put into the space with help of rockets.	They are naturally occurring in the space.
2. They need energy to revolve around any planet.	They revolve around a planet without any external energy.
3. They are made of man-made materials like metals, etc., and have electronic items of measurement and control.	They are made only of naturally existing materials.
4. They can be controlled by humans using technology.	They cannot be controlled with the current technology.
5. Their distance from the planet is relatively less.	Their distance from the planet is relatively more.
6. They have a short lifespan.	They are permanent in their orbit.

2. The moon cannot support life because it has neither air nor water. The moon is very hot during the day (120°C) and very cold in the night (-120°C).

