



Std 5 Science Ch 1 Our Earth & Our Solar System – Q Bank - Answers

Answers:

1. What's the solution? One of the asteroids has fallen out of its place in the asteroid belt and is hurtling towards the sun. Our earth is in its way and there is all likelihood of a collision. What can be done to prevent this collision?

Ans: NASA and other space agencies are closely watching the earth orbit. If they find any object moving towards it, they will spin into action and try to divert its path.

2. Use your brain power !

(1) What will happen to our solar system if the sun were to suddenly disappear?

If the sun would disappear then the earth and all the heavenly bodies in its solar system will lose their orbits and move towards the heavenly body or star with greater gravitational pull than its own. There will be total darkness on the earth and all living things will freeze to death.

(2) Suppose you want to give your address to a friend you have on the planet Mars.

How will you write your address if you want them to understand exactly where you live?

I would write:

Miss/Master (my name),

Flat No. _____, / House No. _____,

Name of my building/ house,

_____ Road,

Bandra West,

Mumbai 400 058,

Maharashtra,

India,

Asia,

Planet Earth,

Solar System,

Milky way Galaxy.

3. Name the planets in their sequential order?

Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

4. Who am I?

(a) You can see me from the earth but the lighted part of me that you see changes every day.

Moon

(b) I have my own light. It is only from me that the planets get light and heat.

Sun

(c) I turn around myself, around a planet and also around a star.

Satellite

(d) I turn around myself and revolve around the sun.

Planet

(e) No other planet has a living world like mine.

Earth

(f) I am the nearest star to the earth.

Sun

5.(a) For what purpose are rockets used in space travel?

Very powerful rockets are used to send a spacecraft into space. A tremendous quantity of fuel is burnt in rockets so that spacecraft weighing thousands of tons can be launched into space.

(b) What information do man-made satellites provide?

Man-made satellites provide useful information for agriculture, environment, weather forecasting, making maps, and searching for water and mineral wealth on the earth. They are also used for telecommunication.

Fill in the blanks:

- 1) Stars are very far away from the earth.
- 2) The sun, the moon, the stars, the planets, etc. are all known as heavenly bodies.
- 3) The heavenly bodies that twinkle are called stars.
- 4) Stars have their own light.
- 5) The sun is a star.
- 6) The Sun appears big and brilliant because it is closer to us than any of the other stars.
- 7) We cannot see other stars during the day because of the bright light of the sun.
- 8) The heavenly bodies that do not twinkle are called planets.
- 9) Planets do not have light of their own.
- 10) Planets get light from the stars.
- 11) Planets revolve around a star, even as they rotate around themselves.
- 12) Our earth is a planet.
- 13) The earth gets its light from the sun.
- 14) The earth moves around the sun.
- 15) Its movement around the sun is called the revolution of the earth.
- 16) The sun, which is a star, and the planets that revolve around it are together called the solar system.
- 17) Besides the planets, the solar system also includes various other heavenly bodies.
- 18) Our solar system is filled with heavenly bodies like the Sun, our eight planets, dwarf planets, dozens of moons and millions of asteroids, comets and meteoroids.
- 19) Some heavenly bodies that revolve around planets called satellites.
- 20) Satellites get their light from the sun.
- 21) The moon revolves around the earth.
- 22) Some smaller heavenly bodies that revolve around the sun are called dwarf planets.
- 23) There is a band of numerous small heavenly bodies between the planets Mars and Jupiter are called asteroids.
- 24) Asteroids also revolve around the sun.
- 25) Compared to the sun, other heavenly bodies in the solar system are much smaller.
- 26) All heavenly bodies exert a force of attraction or a pull on one another. This force is called the force of gravity.
- 27) Due to the earth's gravity, all things on the earth remain on it.
- 28) Even if we throw something upwards with great force, it finally falls down to the ground. This is because of gravity.
- 29) The emptiness between and beyond the stars and planets is called space.
- 30) To send some object from the earth into space, it must be given power against the force of gravity.
- 31) Rocket technology or space launch technology is used in order to send any object away from the earth.
- 32) Man-made satellites provide useful information for agriculture, environment, weather forecasting, making maps, and searching for water and mineral wealth on the earth.
- 33) Man-made satellites are also used for telecommunication.
- 34) ISRO means Indian Space Research Organization.
- 35) On 22 October 2008, the Indian Space Research Organization, ISRO, launched a spacecraft to the moon. The mission is known as Chandrayaan-1.
- 36) Mangalyaan is known as M.O.M. or Mars Orbit Mission.
- 37) Magalyaan was launched on 5 November 2013.
- 38) Scientists who travel in the spacecraft are called astronauts.
- 39) Rakesh Sharma became the first Indian astronaut to go into space in 1984.
- 40) He spent eight days on a space station for a joint mission of the ISRO and the Soviet Intercosmos.
- 41) Seeing India from space, he said that it looked 'Saare jahan se achha!'

Answer the following questions:

- 1) What are heavenly bodies?

All natural objects in our solar system, such as the sun, moon, stars, planets, comets, asteroids, satellites, meteoroids, etc. are called heavenly bodies.

2) Why can we see the round shape of the moon clearly?

We can see the round shape of the moon clearly because it is comparatively closer to the earth than any other heavenly bodies.

3) What are stars?

The heavenly bodies that twinkle are called stars. Stars have their own light.

4) Why does the sun appear big and brilliant?

The sun appears big and brilliant because it is closer to the earth than other stars.

5) What are planets?

The heavenly bodies that do not twinkle are called planets. Planets do not have light of their own. They get light from the stars. Planets revolve around a star, even as they rotate around themselves.

6) From where does the earth get its light?

The earth gets its light from the sun.

7) What is the movement of the earth around the sun called?

The movement of the earth around the sun is called its revolution.

8) How many planets revolve around the sun? Name them?

Eight planets revolve around the sun. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

9) What is an orbit?

The specific path in which the planets revolve round the sun is called the orbit.

10) What is the Solar system?

The sun along with the planets, satellites, asteroids, meteoroids, comets and all other heavenly bodies that revolve around it forms the solar system.

11) What are satellites?

The heavenly bodies that revolve around a planet are called satellites.

12) Name the satellite of the earth?

The moon is the satellite of the earth.

13) Why is the moon, called the satellite of the earth?

The moon is called the satellite of the earth because it revolves around the earth.

14) Which planets in our solar system have natural satellites?

The planets Earth, Mars, Jupiter, Saturn Uranus and Neptune have natural satellites.

15) What are man-made or artificial satellites?

Man-made satellites are machines that are launched into space and orbit the earth or any other planet.

16) Why are man-made or artificial satellites launched into space?

Man-made satellites provide useful information for agriculture, environment, weather forecasting, making maps, and searching for water and mineral wealth on the earth. They are also used for telecommunication.

17) What are dwarf planets?

The smaller heavenly bodies that revolve around the sun in their independent paths are called as dwarf planets.

18) Name a dwarf planet in our solar system?

Pluto is a dwarf planet in our solar system.

19) What are asteroids?

The rocky objects that revolve around the sun are asteroids.

20) Where do find the asteroids?

Numerous asteroids of different sizes are found, forming a band or belt between the planets Mars and Jupiter.

21) Which planet is nearest to the sun?

The planet Mercury is closest to the sun.

22) At what position is the earth from the sun?

The earth is at number three position from the sun.

23) Which planet is placed between the earth and Mercury?

Planet Venus is between Earth and Mercury.

24) Name the planets beyond the orbit of Mars in serial order.

Planets Jupiter, Saturn, Uranus and Neptune are beyond the orbit of Mars.

25) Which planet in the solar system is furthest from the sun?

The planet Neptune is furthest from the sun.

26) What is gravity?

All heavenly bodies exert a force of attraction or pull on one-another. This force is called the force of gravity.

27) Why do the planets move in around the sun in their fixed orbits and do not move out?

The sun exerts a gravitational pull on all the planets whereas the planets try to move away from the earth. As a result of these two forces, a planet keeps revolving around the sun at a fixed distance in a fixed orbit.

28) Why do all the things remain on the earth and not fall out of it?

All the things remain on the earth and not fall out of it because of the gravitational force that it exerts on all the things.

29) Even if we throw something up with great force it finally falls down to the ground. Why?

Even if we throw something up with great force it finally falls down to the ground because the earth exerts a gravitational force on all objects.

30) What is space?

The emptiness between and beyond the stars and planets is called space or outer space.

31) What technology is used to send object into outer space?

Rocket technology or space launch technology is used to send objects into outer space.

32) How does the Diwali firecracker – ‘rocket’ work?

The Diwali firecracker - ‘rocket’ is packed with explosive substances. The explosives burn rapidly and produce a lot of energy and the firecracker is pushed in a certain direction at a great speed.

33) How are rockets sent into space?

A tremendous quantity of fuel is burnt in rockets so that spacecraft weighing thousands of tons can be launched into space.

34) Who are astronauts?

The scientists who travel into space are called astronauts.

35) Who is the first Indian to travel into space?

Wing commander Rakesh Sharma is the first Indian to travel into space.

36) In which year did Rakesh Sharma travel into space? How many days did he spend there?

Rakesh Sharma travelled into space in 1984. He spend eight days in the space.

37) What words did Rakesh Sharma use to describe India from space?

Rakesh Sharma said that India looked, “Saare jahan se achha!”

38) What is Chandrayaan-1?

On 22 October 2008, the Indian Space Research Organization, ISRO, launched a spacecraft to the moon. The mission is known as Chandrayaan-1.

39) What is the other name for Magalyaan?

Magalyaan is known as M.O.M. or Mars Orbit Mission.

40) When was Magalyaan launched into space?

Magalyaan was launched on 5 November 2013.

41) When did Magalyaan get established in an orbit of Mars

Magalyaan got established in an orbit around the planet Mars on 24 September 2014.

42) Why was Magalyaan launched into space?

Magalyaan was launched and established in an orbit of Mars to gain a deeper study of the moon and Mars.