

Answers Space Unit Review

Terminology Covered:

- Universe – everything that exists, including all matter and energy everywhere
Astronomy – the study of what is beyond the earth
Astronomer- the person who studies the planets
Solar System – the sun and all the objects that travel around it, including the planets and the moons of those planets
Non-Luminous – not making or emitting its own light, reflects light from other sources
Star – a large collection of matter that emits huge amounts of energy
Planet – a large spherical piece of matter, that revolves around a star
Meteorite – a meteoroid that reaches the ground
Axis – an imaginary straight line between the north and south pole
Orbital period – the period of time required for an orbiting object to complete one revolution
Constellations – a group of stars that forms shapes or patterns
Probe – an unmanned space craft sent into space to obtain data and complete research
Satellite – a large natural object that travels in an orbit around a planet
Asteroids – small rocky objects
Asteroid belt – made up of thousands of asteroids one belt is found between Mars and Jupiter
Meteoroid – a lump of rock or metal trapped by Earth's gravity and pulled down through Earth's atmosphere
Meteor – a bright streak of light across the sky caused by a meteoroid
Comet – a chunk of ice and dust that travels in a very long orbit around the sun
Rotation – the spinning of an object on its axis
Revolution – the movement of one object travelling around another
Terrestrial Planets- the inner planets closest to the sun made mostly of rock and metal
Gas Giants – the outer planets, furthest from the sun with atmospheres that consist mostly of gases such as hydrogen and helium
Orbit – the path an object takes as it moves around another object i.e. planets orbit around the sun
Milky way galaxy – the group of stars that our sun belongs to
Galaxy – a huge collection of gas, dust and hundreds of billions and stars and planets

Fill in the blanks for each of the following questions:

- | | | |
|--------------------------------|------------------------------------|--------------------|
| 1. universe | 22. winter | 41. Earth |
| 2. astronomy | 23. towards | 42. Mars |
| 3. constellations | 24. away from | 43. Outer planets |
| 4. Orion | 25. Sun | 44. gas planet |
| 5. Solar system | | 45. Jupiter |
| 6. nonluminous | 26. satellite | 46. Saturn |
| 7. star | 27. space probe | 47. Uranus |
| 8. planet | 28. vary | 48. Neptune |
| 9. reflects light/made of rock | 29. vary | 49. Pluto |
| 10. emits light/made of gases | 30. vary | 50. satellites |
| 11. rotation | 31. vary | 51. asteroids |
| 12. axis | 32. vary | 52. asteroid belt |
| 13. Polaris | 33. vary | 53. meteoroid |
| 14. revolution | 34. vary | 54. meteor |
| 15. 24 | 35. vary | 55. meteorite |
| 16. 1 | 36. vary | 56. comet |
| 17. seasons | 37. Mercury, Venus, Earth and Mars | 57. Halley's comet |
| 18. 6pm | 38. terrestrial or inner planets | 58. 76 years |
| 19. 23.5 | 39. Mercury | 59. Deep Space 1 |
| 20. orbit | 40. Venus | |
| 21. orbital period | | |

Short Answer Questions:

1. What are the two reasons we have seasons here on earth?
The two reasons we have seasons is because of the rotation of the earth on its axis and because the earth revolves around the sun.
2. What is the difference between natural satellites and artificial satellites?
Natural Satellites – revolve around the planets
Artificial Satellites – put there by humans
3. Describe briefly what a comet is?
a chunk of frozen matter that travels in an orbit around the sun.

4. Describe the difference between a meteorite and a meteoroid.

A meteor is a lump of rock and metal trapped by Earth's gravity

A meteoroid is a lump of rock and metal trapped by Earth's gravity and pulled down to earth's atmosphere.

A meteorite occurs when meteoroids are large enough and hit the surface of the Earth.

5. Explain why a constellation appears to change position from hour to hour during the night.

Earth is rotating on its axis, so all the objects in the sky, including the sun, moon, and stars, appear to change position from hour to hour.

6. Probe Matching. Given the following probes match each of the probes to the statement given about them

- | | |
|------------------------|---------------------------|
| a. Curiosity | e. Hubble Space Telescope |
| b. Jupiter – Galileo | f. Saturn- Cassini |
| c. Mercury Mariner 10 | g. Mercury Messenger |
| d. Asteroid Belt –Dawn | h. Jupiter Juno |

- I. First to use the gravitational pull of one planet (Venus) to reach another (Mercury) **c**
- II. Discovered the largest mountain in the solar system **d**
- III. This observatory provides deep and clear views of the Earth and the Universe **e**
- IV. The first to fly past an asteroid, discover the moon of an asteroid and measure Jupiter's Atmosphere **v**
- V. The most recent rover to land on Mars **a**
- VI. The first space craft to orbit Saturn **f**
- VII. The first spacecraft to orbit Mercury **g**