

Skills Worksheet

Directed Reading (27.3) ODD

Section: The Inner Planets

- 1. The planets closest to the sun are called the _____.
- 2. Name the four inner planets.

- 3. The inner planets are also called _____ because they are similar to Earth.
- 4. Describe the composition of the inner planets.

- 5. Bowl-shaped depressions called _____ formed on the surfaces of the inner planets when these planets collided with other objects in space.

MERCURY

- _____ 6. Mercury, the planet closest to the sun, circles the sun every
 - a. 44 days.
 - b. 88 days.
 - c. 4 years.
 - d. 80 hours.
- _____ 7. Mercury rotates on its axis once every
 - a. 95 days.
 - b. 45 days.
 - c. 59 days.
 - d. 5 years.
- _____ 8. Mercury's surface features a long line of cliffs and
 - a. dry ocean beds.
 - b. a large number of craters.
 - c. shallow freshwater springs.
 - d. lava plains.

Directed Reading *continued*

- _____ 9. Mercury's slow rotation and the absence of a significant atmosphere contribute to the planet's
- a. long days and short nights.
 - b. short days and long nights.
 - c. steady temperatures.
 - d. large daily temperature range.

VENUS

10. How long is the orbital period of Venus, the second planet from the sun?

11. How often does Venus rotate?

12. The planet that Venus most resembles in mass, size, and density is

13. Venus's atmospheric pressure is about _____ times

Earth's atmospheric pressure.

14. What two factors cause the high temperatures on Venus?

15. What percentage of the atmosphere on Venus is composed of carbon dioxide?

16. What phenomenon occurs when solar energy heats the surface of Venus and the high concentration of carbon dioxide in Venus's atmosphere prevents most of the infrared radiation from escaping?

17. Venus appears to be very bright in the night sky because drops of

_____ form a cloud layer that reflects sunlight.

18. Why is Venus commonly referred to as the *evening star* or the *morning star*?

Directed Reading *continued*

19. What two types of rock make up the surface of Venus?

In the space provided, write the letter of the description that best matches the term or phrase.

_____ 20. *Magellan*

a. the highest volcano on Venus

_____ 21. volcano

b. a U.S. satellite that orbited Venus for about four years

_____ 22. Maat Mons

c. a landform that is common on Venus

23. How can the craters on Venus be described?

24. What evidence indicates that Venus undergoes periodic resurfacing?

EARTH

25. Earth is the _____ planet from the sun.

26. The orbital period of Earth is _____ days.

27. Earth completes one _____ on its axis every day.

28. How many moons does Earth have?

29. Over the last _____ years, Earth's continents have separated from a single landmass and drifted to their present positions.

30. What two factors have caused the surface of Earth to keep changing?

31. Why is Earth the only planet on which water exists in a liquid state?

Directed Reading *continued*

32. How does Earth maintain the moderate temperatures that are necessary to support life?

33. What three elements does Earth have in the proper combination to support life?

MARS

34. Mars is the _____ planet from the sun.

35. How long is the orbital period of Mars?

36. How often does Mars rotate on its axis?

37. Why are Mars's seasons similar to Earth's seasons?

38. Mars is believed to have been geologically active because of its massive volcanoes and the system of deep _____ on its surface.

39. One of several volcanic regions on Mars is called _____.

40. The largest volcano on Mars, named _____, is three times the height of Mount Everest and has a base about the size of Nebraska.

41. Why do scientists think that Olympus Mons has grown so large?

Directed Reading *continued*

42. Two seismic wave-producing geological events, called _____, indicate that volcanoes on Mars are still active.

43. Why can water not exist as a liquid on Mars?

44. Which two spacecraft found evidence that liquid water once did exist on the surface of Mars?

45. Mars has many surface features that are characteristic of _____ by water.

46. Where might water exist as permanent frost or as a liquid on Mars?

