

The Solar System (Practice Activity)

Name: _____

Instructions: Record all answers on your response sheet.

TRUE-FALSE: Answer "T" for True or "F" for False. If the supervisor has difficulty determining whether your response is a "T" or an "F," it will be marked incorrect.

1. Earth and the Sun were formed from materials within the same cloud of interstellar matter.
2. Some asteroids are known to cross Earth's orbit.
3. A lunar eclipse may occur only during the Moon's full phase.
4. Ceres, the largest asteroid, is nearly the size of Earth's Moon.
5. Earth's varying distance from the Sun is the primary cause of its seasons.
6. Earth's fully eclipsed Moon generally appears reddish-orange in color.
7. The Moon rotates about its axis once during each orbit around Earth.
8. The distribution of elements in the Sun is quite similar to those in the large gaseous planets.
9. The same hemisphere of Mercury always faces the Sun.
10. The rings in orbit about the giant planets are constantly evolving.
11. Most meteorites originate from comets.
12. When aimed at a comet, the Chandra X-ray Observatory may detect x-rays.
13. Mercury cannot be seen at midnight because it is too close to the Sun at that time.
14. We now know precisely how Earth's Moon was formed.
15. The orbital velocity of a planet varies with its distance from the Sun.
16. The phases of Venus supported the theory of a sun-centered universe.
17. Long-period comets originate from within the Kuiper belt.
18. The oxygen within Earth's atmosphere is a product of outgassing.
19. Olympus Mons, the large martian volcano, is a composite volcano.
20. Trojan asteroids are a potential threat to life on Earth.

Short answer questions: Enter a one or two word response for each of the following questions. Spellings must be close enough to leave no doubt as to what word you are attempting to write.

21. What planet is at times totally engulfed by global dust storms?
22. What terrestrial planet has no significant atmosphere?
23. What planet has the largest volcanoes in the solar system?
24. What planet's ring system is only tens of meters from top to bottom but stretches outward several hundred thousand kilometers?
25. What planet has the hottest planet-wide temperatures?
26. What terrestrial planet may be considered geologically dead?
27. What is the principal gas component of the martian atmosphere?
28. What planet has a canyon 4800 km (3000 mi) long and 6.5 km (4 mi) wide?

Questions 29-55 are on the back. Turn this sheet over to continue.

29. What outer planet has a thin atmosphere and a solitary moon?
30. What comet, the first recognized as a returning visitor, is the source of particles responsible for the Orionid meteor shower?
31. What locations on Earth's surface experience six continuous months of daylight followed by six continuous months of darkness?
32. What planet has twice the mass of all other planets within our solar system combined?
33. What bodies are associated with dust-and-plasma tails and comas?
34. What objects lose significant mass each time they approach and swing around the Sun?
35. What causes the tail of a comet to always point away from the Sun?
36. What geologic activity is responsible for Io's very young surface?
37. During what lunar phase is the entire nearside of Earth's Moon fully illuminated?
38. What stream of solar particles swept much of the martian atmosphere into space?
39. Into what planet did a train of 21 fragments from the Shoemaker-Levy 9 comet plummet?
40. During what lunar phase does the entire illuminated half of the Moon face away from Earth?
41. What planet did Homer call "the most beautiful star set in the sky?"
42. What dark blue, giant planet has white cirrus clouds and visible storm systems within its atmosphere?
43. What are the most numerous surface features on Mercury?
44. Name the first comet known to return at regularly-spaced intervals.
45. What inner planet reflects 76 percent of the light it receives from the Sun?
46. Which one of the giant planets has no really massive satellites?
47. What were the only extra-terrestrial rocks available for study prior to the Space Age?
48. On what body would one find the Sea of Tranquility and the Sea of Nectar?
49. What planet has the fastest rotational rate?
50. Which of Saturn's moons is enveloped by a significant atmosphere?
51. What did early observers believe the Moon's flat, darkened areas to be?
52. What planet within our solar system ranks fifth in size?
53. What planet, during an 18th century solar transit, provided proof of an atmosphere surrounding a planet other than Earth?
54. What planet's clouds consist of sulfuric acid droplets?
55. What is the largest moon in the solar system?

For more questions in a game format, play "The Game of SPACE." Visit <http://www.otherworlds-edu.com>