

SCA Science 6 – Study Guide

Chapters 10 and 11

Name: _____

I. Fill in the Blank: Write the correct answer from the word bank

magnitude	nova	parallax
pulsar	supernova	variable stars

- pulsar 1. a neutron star that spins rapidly on its axis
- super nova 2. the death explosion of a star
- nova 3. an existing star that flares up and becomes brighter than normal
- variable stars 4. stars that regularly or repeatedly change in magnitude
- parallax 5. a star's apparent movement in relationship to other stars
- magnitude 6. the brightness of a star

aurora	chromosphere	corona	photosphere	solar flares
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- photosphere 7. the surface of the sun
- solar flares 8. created by solar storms exploding from the photosphere
- corona 9. the outermost part of the sun
- aurora 10. energy emitted in the form of beautiful colors
- chromosphere 11. the atmosphere of the sun

II. Short answer:

12. Absolute magnitude is how bright a star really is.
13. How bright a star looks to us is called apparent magnitude
14. The closet star to the Earth is the sun.
15. A cloud of interstellar gases and debris is a nebula.
16. Venus is the closest planet to Earth. It is the brightest object in the morning and evening skies.
17. Mercury is the planet closest to the sun. It is the smallest planet, about one-third the size of Earth.
18. Of all the planets, God made Earth unique in that it is the only planet able to sustain life.
19. One of the brightest objects in the night sky, Mars is visibly red.
20. Saturn is known as the "ringed planet."
21. The space probe *Voyager 2* revealed that Uranus is a blue-green planet that rotates on its side.
22. Neptune has the most violent weather in the solar system.
23. Jupiter is the largest planet in our solar system. All the other planets in the solar system could fit inside it!
24. The football shaped Great Red Spot of Jupiter is believed to be a huge hurricane that blows nonstop.
25. Saturn's rings are made up of small frozen particles that reflect the sun's light.
26. Uranus's color is produced by its atmosphere of poisonous methane gas.

III. True – False: Write “T” for True or “F” for False.

- F 27. Refracting telescopes use mirrors to reflect light to make objects appear larger.
- T 28. Radio telescopes collect radio waves to detect objects in space that do not give off enough light to be seen by other telescopes.
- F 29. The scientific study of the stars is called astrology.
- F 30. An open star cluster is a constellation that revolves around the North Star.

IV. Complete the Statement: Circle the correct term

31. The complete turn of a planet on its axis is called a (revolution / rotation).
32. Dark spots on the photosphere of the sun are called (solar prominences / sunspots).
33. For a solar system object to be considered a planet it must orbit the sun, be large enough for its own gravity to keep it in the ^{shape} ~~shape~~ of a sphere, and not share its (orbit / atmosphere) with objects of similar size.
34. Junipter, Neptune, Saturn, and Uranus are the (inner planets / outer planets).
35. Earth, Mars, Mercury, and Venus are called the (inner planets / outer planets).
36. The inner planets are also known as (earth giants / terrestrial planets) because they are dense and composed of rocks.
37. A (lunar eclipse / solar eclipse) occurs when the moon passes between the earth and the sun.
38. A (lunar ~~luna~~ eclipse / solar eclipse) occurs when the moon passes through the shadow of the earth.