## Astronomy 2 Unit Study Guide

1. Draw a diagram showing the location of the earth, sun, and moon during a full moon. Describe the appearance of the moon. (S6E2a)
2. Which phase of the moon comes before a new moon? (S6E2a)
3. Describe the location of the Earth, Sun, and Moon during a solar eclipse. (S6E2b)
4. Draw a picture in the box to the right showing the next moon phase that will occur. (S6E2a)

5. Draw a diagram illustrating the placement of the sun, Earth, and moon during a lunar eclipse. Explain what causes a lunar eclipse (S6E2b)


First quarter
6. Based on the observed phase of the moon above, draw a diagram predicting the location of the Moon in its orbit around the Earth. (S6E2a)
7. Why are different phases of the Moon visible from Earth? (S6E2a)
8. Draw a diagram illustrating the location of the Earth, Sun, and Moon during a solar eclipse. (S6E2b)
9. Define axis. (S6E2b)

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10. Define revolution. (S6E2c)
11. Why does ocean water near the equator absorb more heat throughout the year than ocean water near the North Pole? (S6E2c)
12. Describe what would happen if the tilt of the Earth's axis was $0^{\circ}$. (S6E2c)
13. Look at the diagram to the right. Identify which season the Southern Hemisphere would experience when the Earth and the Sun are in the positions in the diagram to the right. (S6E2c) Explain your answer.

14. When the sun, Earth, and the moon are aligned in the positions shown in the diagram, what type of ocean tide occurs at location X? Explain your answer. (S6E3d)

15. The numbers in the diagram to the right represent the location of the moon. Which number(s) in the diagram above will produce the lowest high tide? (S6E3d) Which number(s) in the diagram above will produce the highest high tide?


## Review from Astronomy 1 Test

16. Why can't the shape of the Milky Way Galaxy be seen from the Earth? (S6E1b)
17. Explain the Geocentric Model of the Solar System. (S6E1a)
18. Describe the location of the Sun in our Milky Way Galaxy. (S6E1a)

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19. Explain the Big Bang Theory. (S6E1a)
20. Why do objects appear to move across the sky? (S6E1d)
21. Identify the Inner Planets and describe how they are different from the outer planets in our solar system. (S6E1c)
22. Compare the characteristics of a meteor and a meteoroid. (S6E1f)

|  | Planet | Characteristics |
| :---: | :---: | :--- |
| 23. |  | Has one moon; Only known planet to sustain life; Has canyons, craters, mountains, <br> volcanoes; More than 70\% of the surface is covered by water |
| 24. |  | Larger than Earth; 1 year equals 29 1/2 Earth years; Largest, most impressive ring <br> system; Gaseous planet; Least dense planet; Second largest planet in the solar system |
| 25. |  | Larger than Earth; Gaseous planet; Coldest planet; Atmosphere of methane; Has <br> large storm system like the Great Dark Spot |
| 26. |  | "Earth-like" characteristics; Surface has many craters and high cliffs; Smaller in size <br> in relation to Earth; Has no moons; Has no atmosphere; innermost and smallest <br> planet in the solar system |
| 27. | All water is now frozen; "Earth-like" characteristics; Once had active volcanoes; <br> Thinner atmosphere than the Earth; Smaller in size in relation to the Earth; Appears <br> red because of rusted soil; Has severe dust storms at hurricane speeds |  |
| 28. |  | Larger than Earth; Largest planet; Faint ring of dust; Gaseous planet; Spins the <br> fastest; Day is 10 hours long; Has at least 63 moons; Large red spot |
| 29. |  | "Earth-like" characteristics; Close to the Earth’s size (95\% of radius); A day is <br> longer than a year due to slow spin; Spins clockwise; Hottest planet (can melt lead); <br> Brightest object in the sky after the Sun and moon |
| 30. |  | Larger than Earth; Gaseous planet; Atmosphere of hydrogen, helium, and methane; <br> Third largest planet; Tipped on its side |

