

## Moon Videos Study Guide

Watch all videos and answer these questions in complete sentences, or filling in a diagram or a blank space.

1. What is one theory of how the Moon formed?
2. No matter what time during its cycle of phases, we are only able to see the same \_\_\_\_\_ of the Moon all the time. (It always shows the same \_\_\_\_\_ to Earth.)
3. Does the Moon produce its own light? \_\_\_\_\_  
Then why does the Moon shine?
4. Why do we see phases of the Moon?
5. What caused the large, dark surfaces of the Moon? (each one is called a mare, and the plural form is maria.)
6. What caused the Moon craters?
7. The Moon's orbit is not perfectly parallel to the Earth's orbit around the Sun. It is \_\_\_\_\_ about 5 degrees.

## Moon Videos Study Guide Continued

8. We don't see the Moon at all during the \_\_\_\_\_ Moon phase because the side we see from Earth is not facing the Sun.
9. We see the complete lit surface of the Moon during the \_\_\_\_\_ Moon phase because the side we see from Earth is completely facing the Sun.
10. A quarter phase of the Moon is when we see \_\_\_\_\_ % of the lit surface. However, the part lit up is on the \_\_\_\_\_ (right or left) side during 1st quarter and the \_\_\_\_\_ (right or left) side during Last quarter (also called third quarter.)
11. What is the difference between a lunar eclipse and a solar eclipse?
12. Diagram the positions of the Moon, Earth, and Sun for a lunar eclipse. Make sure you label each celestial object as "M," "E," and "S"
13. Diagram the positions of the Moon, Earth, and Sun for a solar eclipse. Make sure you label each celestial object as "M," "E," and "S"

14. Sketch the following Moon phases by drawing a circle for the Moon and shading in the dark (unlit) part of it:

a. Full Moon:

b. 1st Quarter:

c. Last or Third Quarter:

d. New Moon:

15. What is the difference between the terms “waxing” and “waning” in terms of the Moon phases?

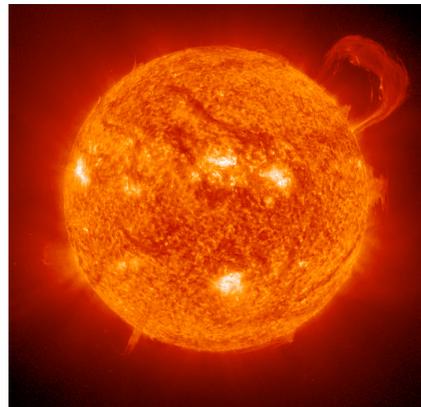
16. The pull of the Moon’s gravity causes the \_\_\_\_\_ on Earth.

17. Label with a “High” and a “Low” where the high and low tides would be in the two below diagrams:





18. When the Sun, Moon, and Earth form a straight line as below, high tides are \_\_\_\_\_ (higher or lower) than usual and low tides are \_\_\_\_\_ (higher or lower) than usual. These are called the \_\_\_\_\_ tides even though it has nothing to do with the season and occur during the \_\_\_\_\_ and \_\_\_\_\_ phases



19. When the Sun and Moon are at right angles to the Earth as below, high tides are \_\_\_\_\_ (higher or lower) than usual and low tides are \_\_\_\_\_ (higher or lower) than usual. These are called the NEAP tides and occur during the \_\_\_\_\_ and \_\_\_\_\_ phases

