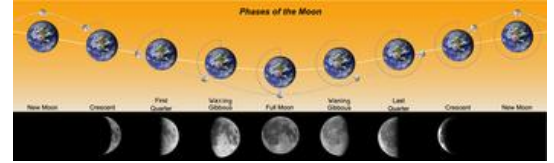


Phases of the Moon

By Patti Hutchison

Was there a full moon last night? Some people believe that a full moon affects people's behavior. Whether that is true or not, the moon does go through phases. What causes the moon to appear differently throughout the month?



You know that the moon does not give off its own light. When we see the moon shining at night, we are actually seeing a reflection of the Sun's light. The part of the moon that we see shining (lunar phase) depends on the positions of the sun, moon, and the earth.

When the moon is between the earth and the sun, we can't see it. The sunlit side of the moon is facing away from us. The dark side is facing toward us. This phase is called the new moon.

As the moon moves along its orbit, the amount of reflected light we see increases. This is called waxing. At first, there is a waxing crescent. The moon looks like a fingernail in the sky. We only see a slice of it.

When it looks like half the moon is lighted, it is called the first quarter. Sounds confusing, doesn't it? The quarter moon doesn't refer to the shape of the moon. It is a point of time in the lunar month. There are four main phases to the lunar cycle. Four parts- four quarters. For each of these four phases, the moon has orbited one quarter of the way around the earth. This is why it is called a quarter moon when it really looks like a half moon.

As the orbit continues, we begin to see more than half of the lighted side of the moon. This is called a waxing gibbous moon. As the lunar month goes on, the moon continues on its path. It comes to a position where the earth is between it and the sun. This time the sunlit side is facing us. We call it a full moon.

Once the full moon is reached, we start to see less and less of the sunlit side. It looks like tiny slices are being taken off. This is called waning. When we still see more than half the moon shining, it is called a waning gibbous moon.

Soon, the moon reaches its third quarter phase. Again, it looks like only half the moon is lighted. We are seeing half the sunlit side. As we begin to see less and less of the sunlit portion, the moon is becoming a waning crescent. Soon it will "disappear" once again and become a new moon.

There are four lunar phases: new moon, first quarter, full moon, and last quarter. It takes the moon about 29.5 days to complete this cycle. This is called a lunar month. Ancient civilizations set their calendars by the phases of the moon. Many calendars, and even some clocks, keep track of the moon's phases yet today.

Phases of the Moon

Questions

1. Why can't we see the moon during the new moon phase?

Name _____



Date _____

_____ 2. As the amount of sunlight we see reflected increases, it is called:

- A. waning
- B. waxing
- C. last quarter

3. Name the four phases of the lunar cycle.

_____ 4. After the full moon, we see less and less of the sunlit side. This is called:

- A. waning
- B. gibbous
- C. waxing

5. How long is a lunar month?

_____ 6. When the moon looks like a half moon, it is in its:

- A. new moon phase
- B. full moon phase
- C. first or third quarter phase

Explain the difference between waxing and waning.
