

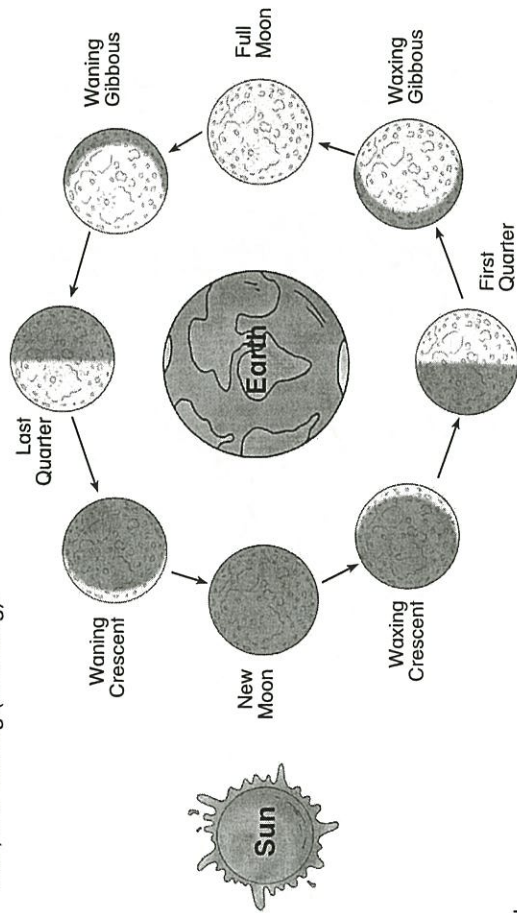
Lunar Cycle: The Moon Through the Month

Read the passage and study the pictures.

The Moon is not a planet like Earth is. It is a satellite, an object in space that orbits another object. The Moon orbits Earth about once every 29 days. This period of time is called the lunar month. The Moon does not make its own light, like the Sun. Instead, it reflects light from the Sun back to us on Earth. The amount of reflected sunlight we see changes as the Moon moves. This is why the Moon seems to change shape.

The diagram shows the Moon's shapes, or phases. The first phase is the new moon. At the start of the lunar month, the Moon is between the Sun and the Earth. Its darkened side faces our planet. We cannot see the Moon at all. As the Moon changes position, we see a sliver of its lighted surface. This is called a crescent moon. When the Moon has finished one-fourth of its trip, it appears half lit. This is the first quarter phase. When the Moon looks like an almost-complete circle, it is called a gibbous moon.

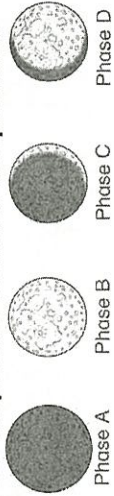
Halfway through its orbit, the Moon appears fully lit. This is the full moon phase. Earth is between the Sun and the Moon at this time. In the first half of the lunar month, we say the Moon is waxing (growing). In the second half, it is waning (shrinking).



Find the answer that correctly completes each sentence.

- The Moon make its own light.
- The Moon revolve around Earth.
- For the first half of the lunar month, the Moon is .
- For the second half of the lunar month, the Moon is .
- During the new moon phase, people on Earth reflected light from the Moon.
- During the full moon phase, people on Earth reflected light from the Moon.
- The first phase after the new moon is the phase.
- We see the most reflected sunlight during the moon phase.

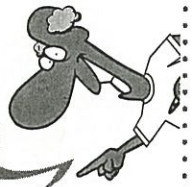
Look at the pictures to answer the questions.



- Phase A is called the moon.
- Phase D is called the moon.
- Phase B happens Phase A in the lunar month.
- Phase C happens Phase D in the lunar month.

Answer Box.....

Remember! The Moon appears to grow during the first half of the lunar month. It appears to shrink during the second half of the lunar month.



A	B	C	D	E	F
after	cannot see	waxing gibbous	waxing crescent	full	before
G	H	I	J	K	L
waxing	new	waning	does not	can see	does



Watch the Moon for one week. Draw what you see each night and identify moon phases.



Earth & Space Sci. #1

NAME: _____
Date: _____

Key!



Name _____

Identifying Phases of the Moon

Waxing Crescent - A little part of the moon's right side is lit.

Full Moon - The moon's entire disk is lit because the Earth is between the sun and the moon.

Waxing Gibbous - About $\frac{3}{4}$ th of the right side moon's disk is lit.

1st Quarter - The right half of the moon's disk is lit.

Waxing - Getting larger.

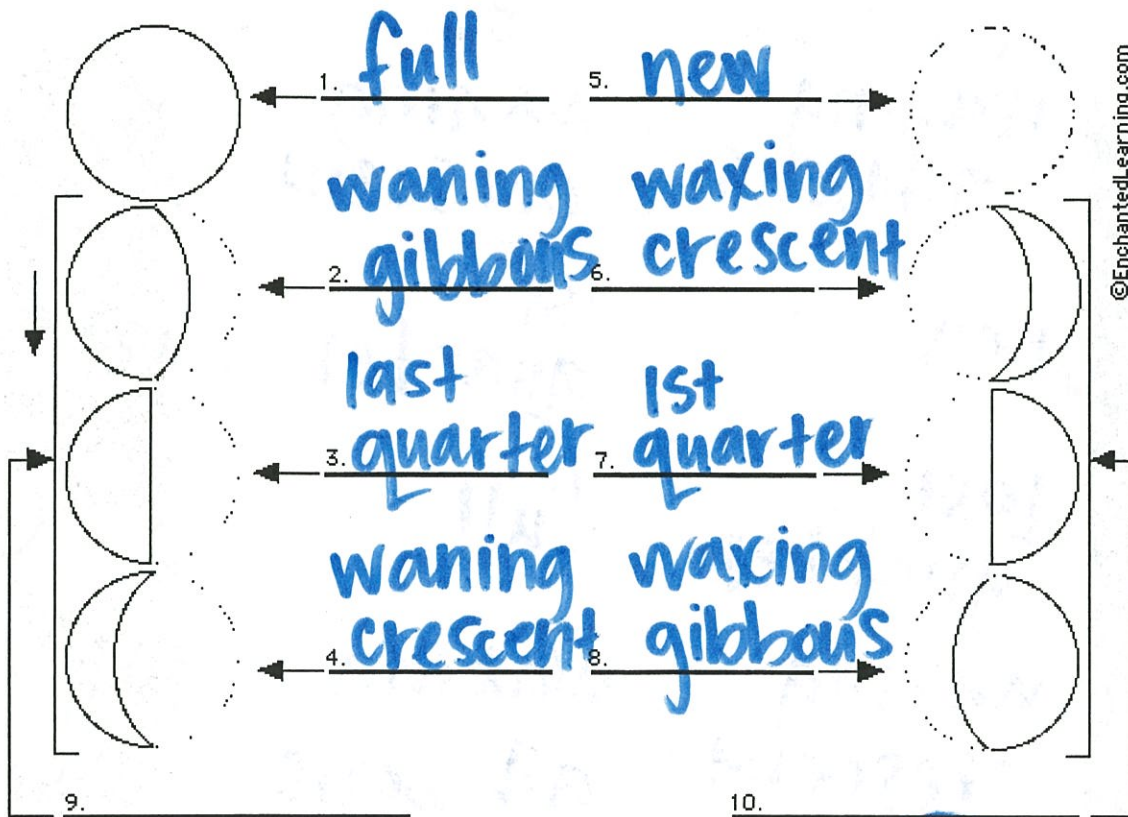
New Moon - The moon's disk facing us is dark because the moon is between the sun and the Earth.

Last Quarter - The left half of the moon's disk is lit.

Waning Crescent - A little part of the moon's left side is lit.

Waning Gibbous - About $\frac{3}{4}$ th of the left side moon's disk is lit.

Waning - Getting smaller.



Are Moons 1-4 waxing or waning?

Are Moons 5-8 waxing or waning?

Identifying the Phases of the Moon II

Waxing Crescent - when we can see only a sliver of the moon's disk (right-hand side).

Full Moon - when the moon's disk is light because the Earth is between the sun and the moon

Waxing Gibbous - when we can see roughly three-quarters of the moon's disk (the right side of the moon is lit).

First Quarter - can see one-half of the moon's disk (at First Quarter, you see the right half of the moon lit [this one-quarter of the entire moon's surface]).









New Moon - when the moon's disk is dark (and invisible to us) because the moon is between the sun and the Earth

Last/3rd Quarter - can see one-half of the moon's disk (at Last/3rd Quarter, you see the left half of the moon lit [this one-quarter of the entire moon's surface]).

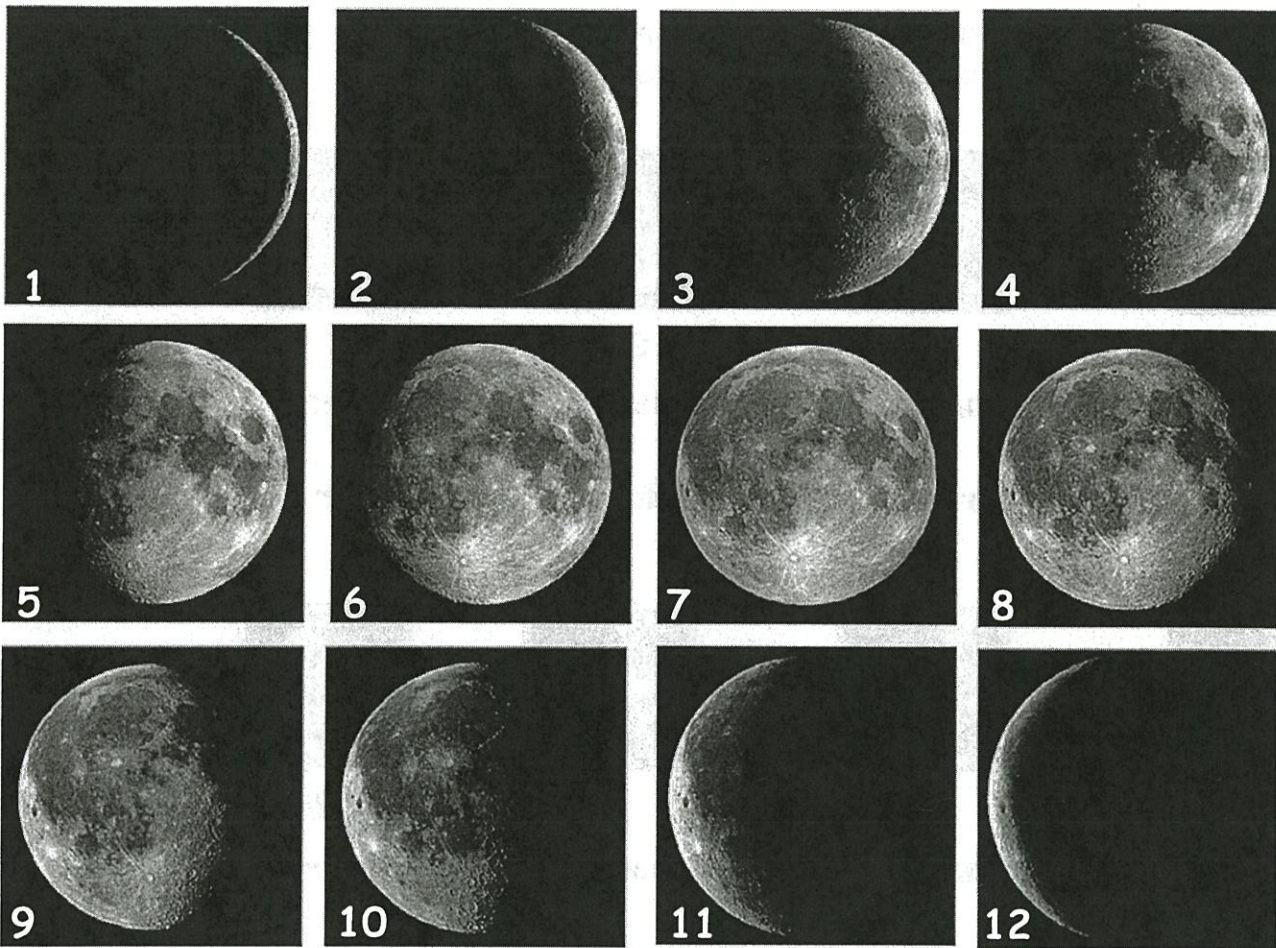
Waning Gibbous - when we can see roughly three-quarters of the moon's disk (the left side of the moon is lit).

Waning Crescent - when we can see only a sliver of the moon's disk (left-hand side).

Using the table above, write the phase of the moon shown in the picture.

	waning gibbous	waning crescent	
	new	1st quarter	
	last quarter	full	
	waxing crescent	waxing gibbous	

Identifying Phases of the Moon III



Using the pictures above, complete the worksheet.

Which image shows First Quarter? 4 Full? 7 Third Quarter? 10

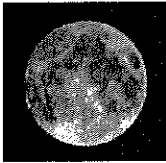
Which images are crescents? 1, 2, 3, 11, 12 Gibbous? 5, 6, 8, 9,

Which images are waxing? 1 through 6

Which images are waning? 8 through 12

Identifying Phases of the Moon IV

For each of the diagrams below, *identify the exact phase* of each and then *order* the phases (1 thru 8) in sequence beginning with the New Moon as #1.



A

Phase:

Order:



B

Phase:

Order:



C

Phase:

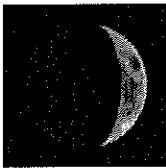
Order:



D

Phase:

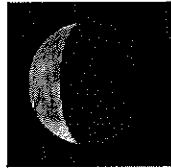
Order:



E

Phase:

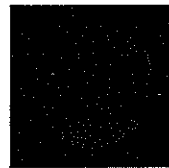
Order:



F

Phase:

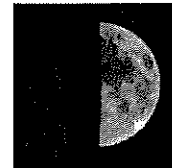
Order:



G

Phase:

Order:



H

Phase:

Order:

Phases:

1. New Moon
2. Waxing Crescent
3. 1st Quarter
4. Waxing Gibbous
5. Full Moon
6. Waning Gibbous
7. Last Quarter
8. Waning Crescent