

Phase	Rises	In Eastern Sky	Highest in Sky	In Western Sky	Sets
New	[~sunrise]	[morning]	[noon]	[afternoon]	[~sunset]
Waxing Crescent	[just after sunrise]	[morning]	[just after noon]	[afternoon]	just after sunset
First Quarter	~noon	afternoon	~sunset	night (pm)	~midnight
Waxing Gibbous	afternoon	~sunset	night (pm)	~midnight	night (am)
Full	~sunset	night (pm)	~midnight	night (am)	~sunrise
Waning Gibbous	night (pm)	~midnight	night (am)	~sunrise	morning
Third Quarter	~midnight	night (am)	~sunrise	morning	noon
Waning Crescent	just before sunrise	[morning]	[just before noon]	[afternoon]	[just before sunset]

Times in brackets [] indicate that the Moon can't be seen because it's too close to the Sun on the sky.

1. The Moon appears to change shape because
- the Moon rotates.
 - Earth rotates.
 - Earth revolves around the Sun.
 - the Moon revolves around Earth

2. It is about 28 days from one full moon to the next. This is because 28 days is about the time it takes for one
- revolution of the Moon around Earth.
 - revolution of Earth around the Sun.
 - rotation of the Sun.
 - rotation of Earth.

Note:

The full moon will be about 2 weeks after the new moon.

The new moon will be about 2 weeks after the full moon

The third (last) quarter moon will be about 2 weeks after the first quarter moon.

The first quarter moon will be about 2 weeks after the third (last) quarter moon

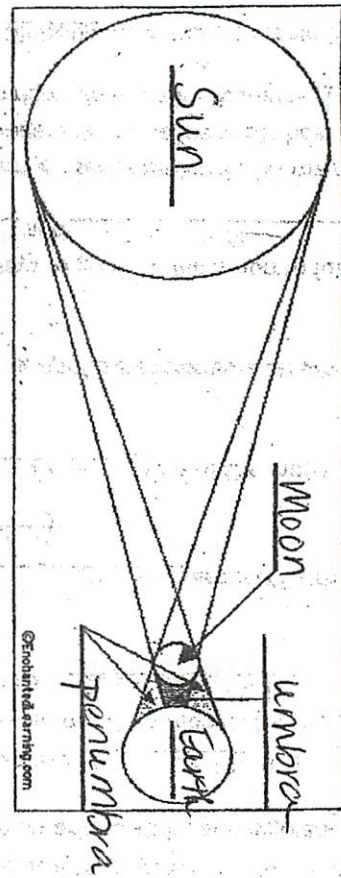
Name:

New Moon

Date:

Eclipse Solar Eclipse

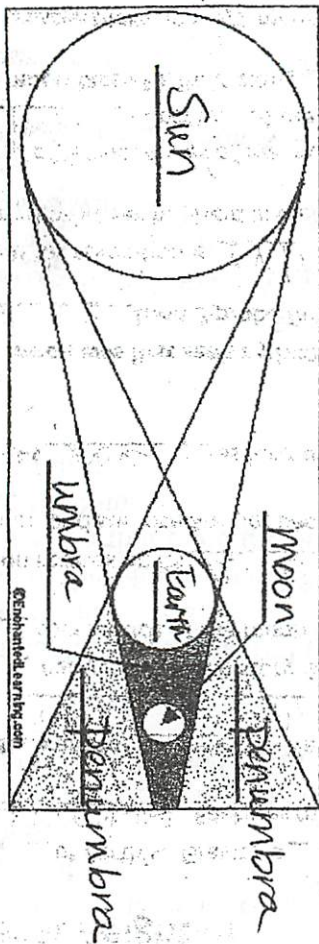
Pd.



Use the following words to label each diagram.

Earth - Penumbra - Sun - Umbra -

Label the Lunar Eclipse (Full moon)



Use the following words to label each diagram.

Earth - Penumbra - Sun - Umbra -

Name:

Date:

Pd.

The Moon: Our closest neighbor

Name: neey

The Moon: Diameter $\frac{1}{4}$ of Earth's. Gravity is $\frac{1}{6}$ of Earth's. Temperatures range from 130 C in direct sunlight to -180 C in darkness due to no atmosphere. Features of the moon's surface include maria, craters, and highlands

Moon's Surface: Maria: Latin word for sea. Named by Galileo; they looked like oceans from Earth. Actually hardened rock from lava flow. Craters ...are large round pits on moon's surface. Formed by the impact of meteoroids early in moon's history. Most are named after famous scientist or philosophers. Highlands, or mountain cover much of the moon's surface.

Moon Movement: The moon rotates on its axis. The moon revolves around Earth as we revolve around the sun. We see the moon and sun rise and set because we are rotating.

Moon Rotation: Moon rotates once as it revolves around Earth. The same side of the moon always faces Earth!

Fun Fact: The back side of the moon was first seen by human eyes in 1968 by orbiting Apollo 8 astronauts. It was first photographed by Soviet Luna 3 probe in 1959!

Moon Revolution: Another word for revolution is orbit. It takes 29 $\frac{1}{2}$ days to go from full moon to full moon. It actually takes 27 days for moon to orbit Earth. Held in place by gravity and inertia.

Phases are the different shapes of the moon of reflected sunlight that we see from Earth. As the moon revolves and the Earth, the relative positions of the moon, Earth, and sun change. The phase we see is how much of the sunlight of the moon faces Earth. Waxing - to gain light; lit on right, gains light Waning - to lose light

Moon Phase Nouns to know: Crescent - less than $\frac{1}{2}$ moon; like a fingernail; Gibbous - more than $\frac{1}{2}$; looks like a football

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