



Moon Phases



Think About It!

- How do rotation and revolution apply to the moon and its phases?.

Why does the moon have phases?



- Like Earth, the moon rotates on its axis
- The Moon revolves around the Earth.
- The Moon's revolution *appears* to cause its different phases.
- Q. How long does it take the moon to complete one revolution?

Moon Facts



- Even though the moon rotates, **the same side of the moon always faces the Earth.**
- **Q. Does the moon give off it's own light?**
- **As the moon orbits Earth, its position in the sky changes >>>> different phases of the moon we see each month.**



Think About It!

- From your activity yesterday, were you able to determine how many phases of the moon there are?

8 Phases of the Moon



•New Moon

•Full Moon

•Waxing Crescent

•Waning Gibbous

•First Quarter or
Half Moon

•Last Quarter or
Half Moon

•Waxing Gibbous

•Waning Crescent

Terms To Know



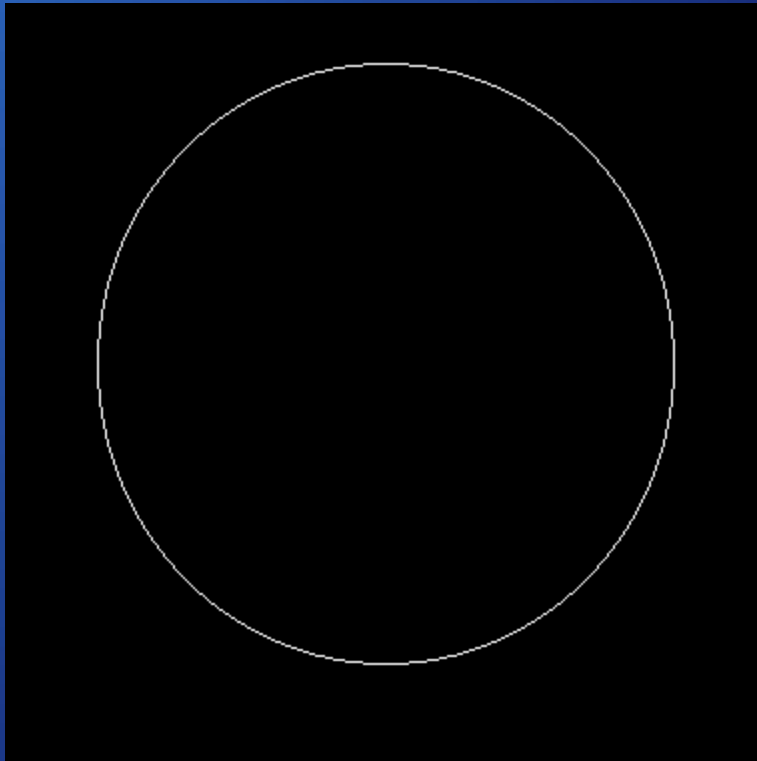
• **Waxing:** bright side is increasing

• **Crescent:** less than $\frac{1}{2}$ of the moon is lit

• **Waning:** bright side is decreasing

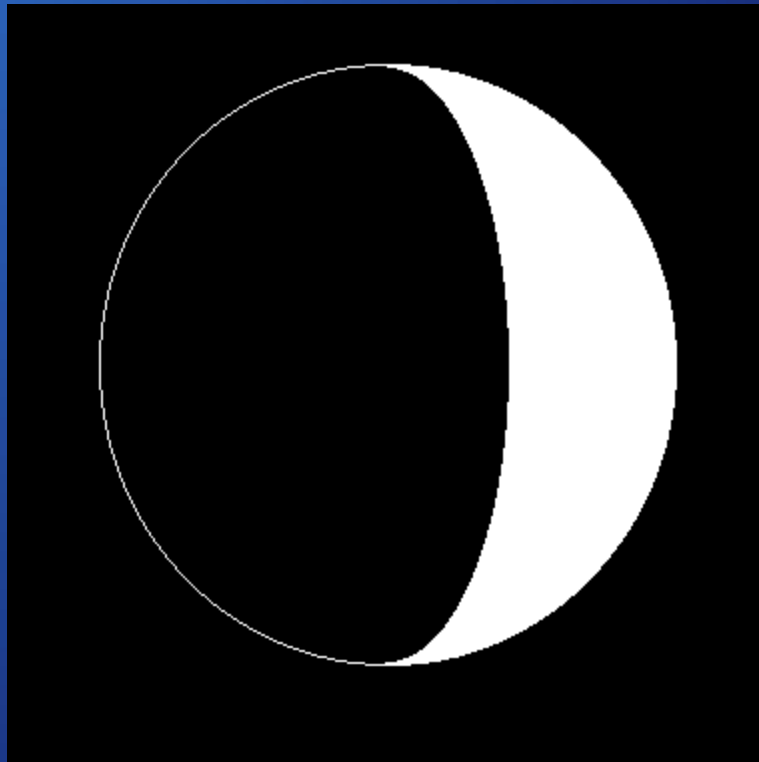
• **Gibbous:** more than $\frac{1}{2}$ of the moon is lit.

New Moon



- The moon is not visible from Earth.
- The moon is between the Sun and the Earth.
- The dark side is facing us.
- This phase lasts one night.

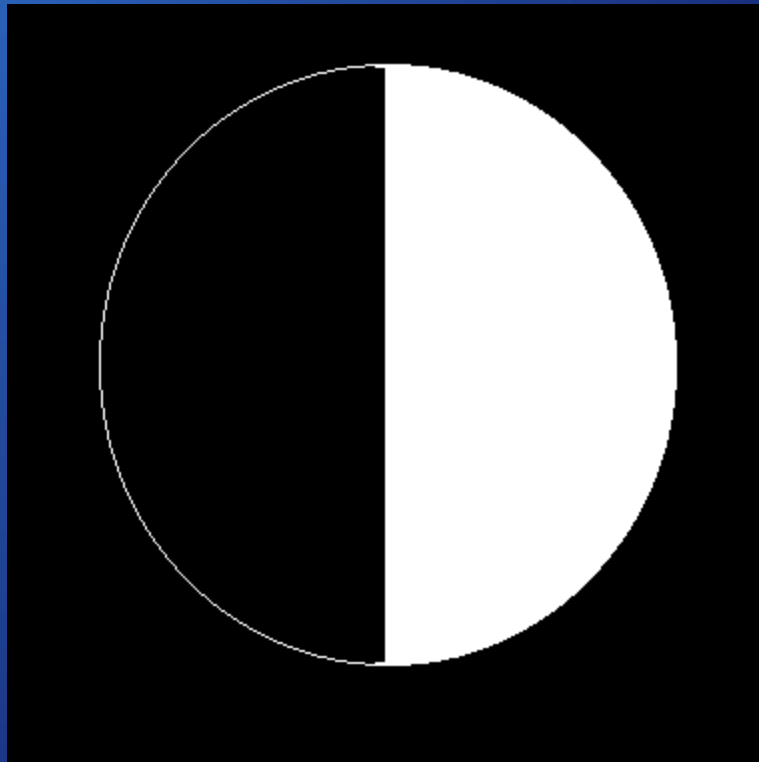
Waxing Crescent



- The right side is the bright side.

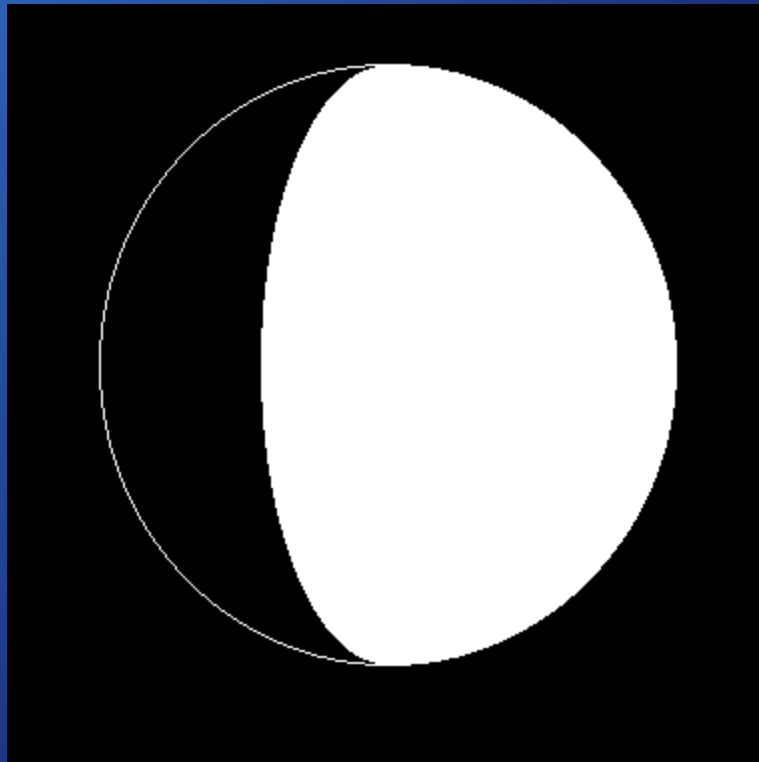
- This phase includes any visible moon from a small sliver to almost half.

First Quarter or Half Moon



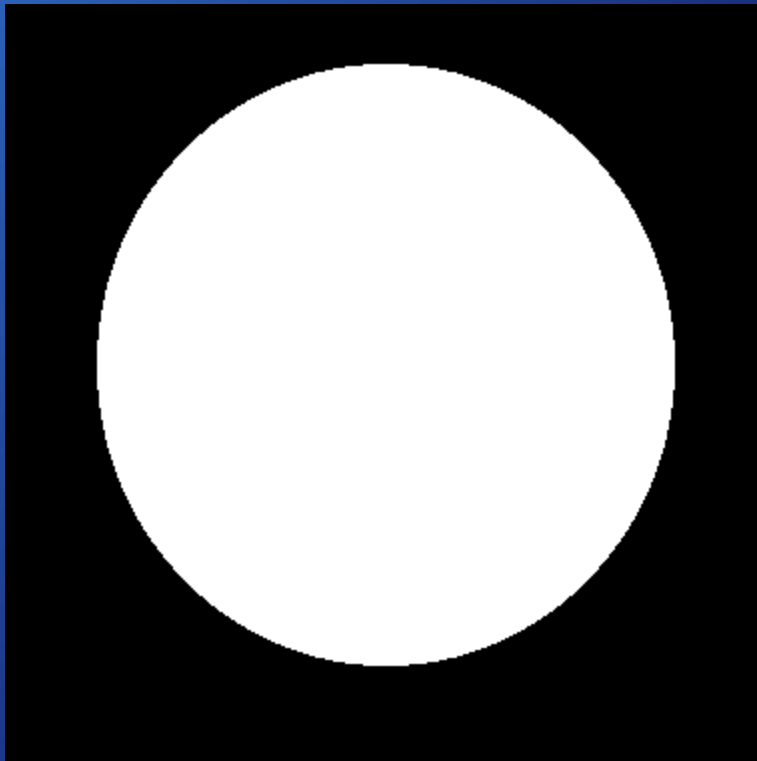
- The entire right side of the moon is illuminated.
- The moon looks like a half circle.
- This phase only lasts one night.

Waxing Gibbous



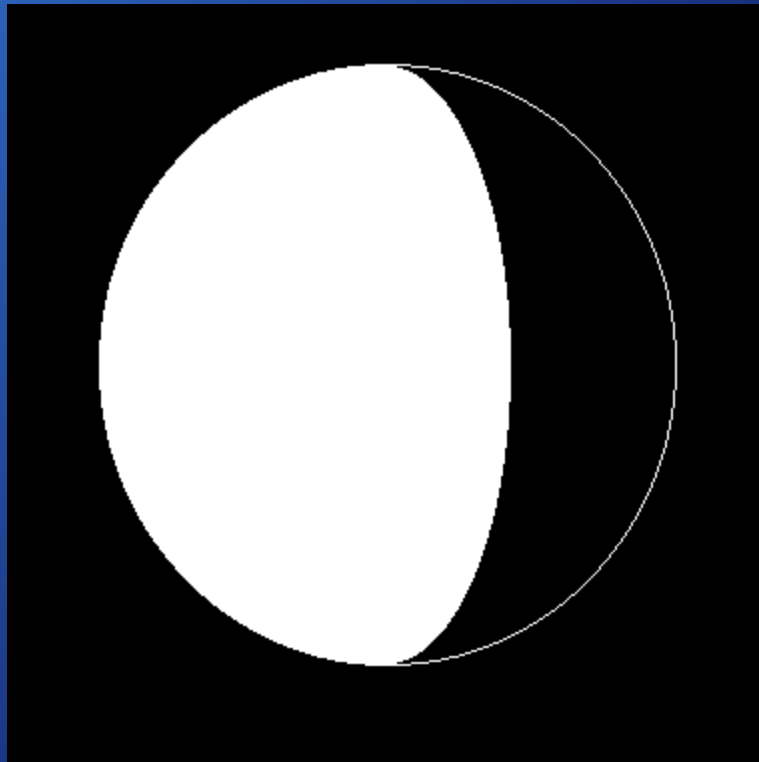
- This phase includes **the night after the first quarter to the night before the full moon.**

Full Moon



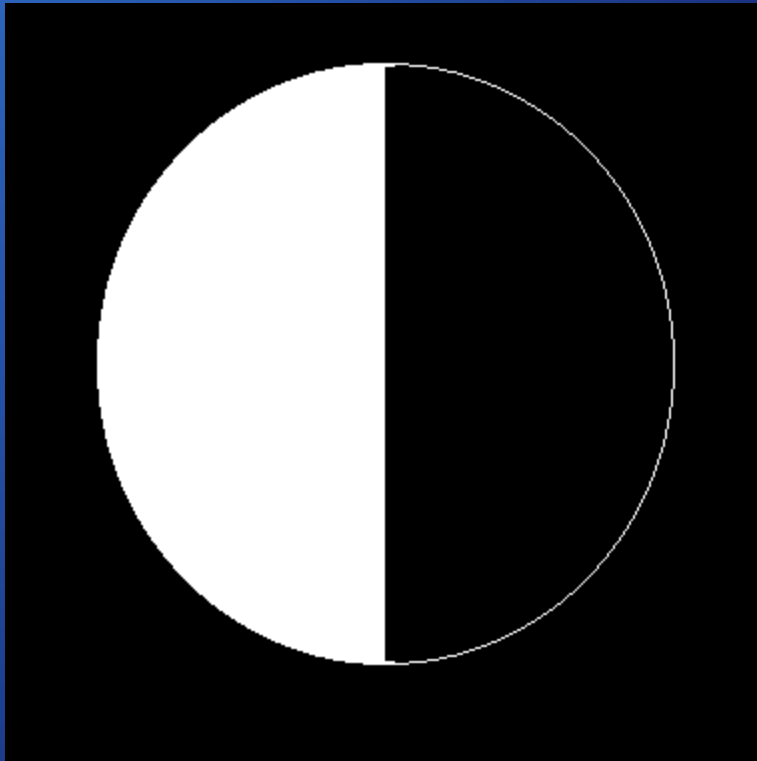
- The moon is full and bright. It looks like a large circle.
- The illuminated side is facing us.
- Only happens one night in the lunar cycle.

Waning Gibbous



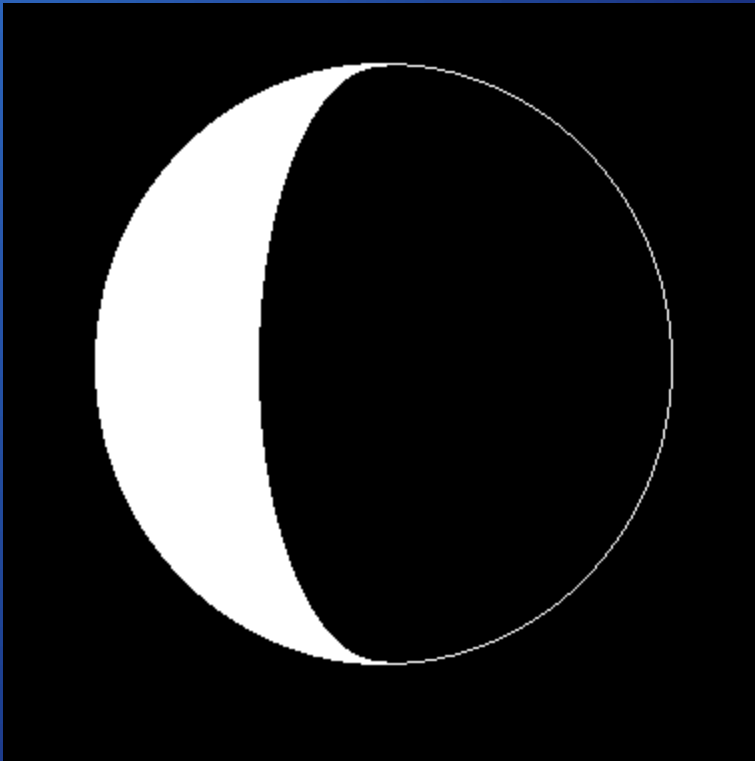
- The left side is the bright side.
- The moon appears more than half but not quite full.

Last Quarter or Half Moon



- Left Half of the moon is illuminated.
- The illuminated side is decreasing.
- This phase also only lasts for one night.

Waning Crescent



- Less than one half of the moon is illuminated.
- The moon will continue to become smaller and smaller.

The Phases of the Moon

