








The phase of the moon is how much of the moon appears to us on Earth to be lit up by the sun. Half of the moon is always lit up by the sun, except during an eclipse, but we only see a portion that's lit up. This is the phase of the moon.

Around once per month, every 29.53 days to be exact, the moon orbits around the Earth. As the moon circles the Earth, we can only see a portion of the lit up side. When we can see 100% of the lit up side, this is a full moon. When we can't see any of the lit up side, this is called a dark moon or new moon.

What are the different phases of the moon?

As the moon orbits or circles the Earth, the phase changes. We'll start with what is called the New Moon phase. This is where we can't see any of the lit up side of the moon. The moon is between us and the sun (see the picture). As the moon orbits the Earth we can see more and more of the lit up side until finally the moon is on the opposite side of the Earth from the sun and we get a full moon. As the moon continues to orbit the Earth we now see less and less of the lit up side.

The phases of the moon starting with the New Moon are:

- > New Moon → don't see moon
- > Waxing Crescent 
- > First Quarter 
- > Waxing Gibbous 
- > Full 
- > Waning Gibbous 
- > Third Quarter 
- > Waning Crescent 
- > Dark Moon



know order

Waxing or Waning?

As the New moon begins its orbit and we see more and more of the moon, this is called Waxing.

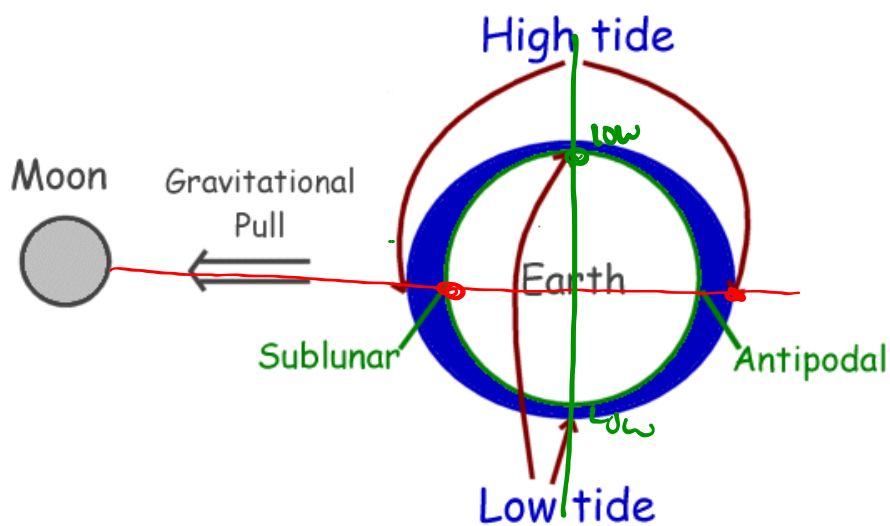
After the moon gets to its Full phase, we start to see less and less of the moon. This is called Waning.

Tides

The Moon is the main cause of our tides

Tides and the Moon

While the Sun and the rotation of the Earth both have some tidal impact, the location of the Moon has the biggest affect on the tide. The gravity of the Moon causes a high tide both on the side of the Earth directly below the Moon (sublunar tide) and the opposite side of the Earth (antipodal). Low tides are on the sides of the Earth 90 degrees away from the Moon. See the picture below.



April 4 or 5 will be the test on SPACE

so Study your notes, every night

Research

Powerpoint or SmartNotebook

- 1) Canadian MALE astronaut and the dates he was in space.
- 2) Canadian FEMALE astronaut and the dates she was in space.
- 3) What is light pollution and how does it relate to this space unit.
- 4) Look up the names of failed space missions (ones that blew up)
- 5) Research and type a half a page on how technology has changed over the years to help space explorations. (Look up dates of the first space shuttle, when the first satellite was launched, ... and MORE)
- 6) Add any info about questions from class you have

#1 & #2

Astronauts

- When they were born?
- What did they study in school to become astronauts?
- Paragraph on personal life (Family, interest, ...)
- When did they go to space?
- What did they do in space?(research what?)
- How long were they in space?
- 3 more interesting facts