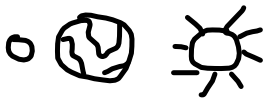
How Does the Moon Affect the Earth?

As the Moon and the Earth move in space, they sometimes block each other from the sun's light. When this happens, we see an **eclipse.**

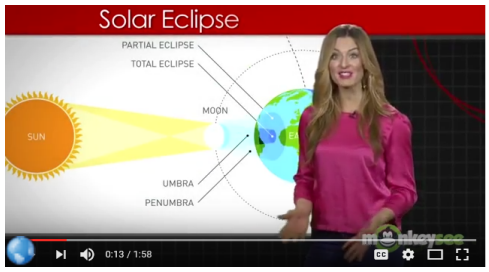
Lunar Eclipse - the Earth blocks the sun's light from reaching the Moon.



total lunar eclipse

Solar Eclipse

Solar Eclipse - the Moon blocks the sun's light from reaching the Earth.



Solar eclipse

Both solar and lunar eclipses are alike in that one body blocks the sun's light from reaching another body. The shadow of the moon on the Earth in a solar eclipse is very small and only covers a small portion of the Earth, while the shadow of the Earth on the moon in a Lunar eclipse easily covers the whole face of the moon.

Feb. 10, 2017 Lunar Eclipse Pictures

To see a solar eclipse, you have to be on the daylight-facing side of Earth. To see a Lunar Eclipse you can be anywhere on the night-facing side of Earth.

The moon travels around the Earth every 29.5 days BUT we do not have a solar eclipse every month because the plane that the Moon orbits around the Earth is a little tilted, so that the moon is not always perfectly in line with the sun and the Earth. Because of this tilt, the solar eclipses are very rare.

How does the Moon Move?

The Moon is the largest and brightest object in the night sky. The Moon does not give off its own light, it reflects the sun's light.

To us the Moon appears to change shape over the course of several nights. We call these different shapes the phases of the moon.(Look at Page 24 Exploration) 

The Moon, like the Earth, has two kinds of motion.

1) revolves around the Earth in an orbit

2) rotates on its axis.

(It takes the Moon 29.5 Days to make a complete rotation around the Earth). It takes the Moon the same amount of time to make one rotation on its axis.