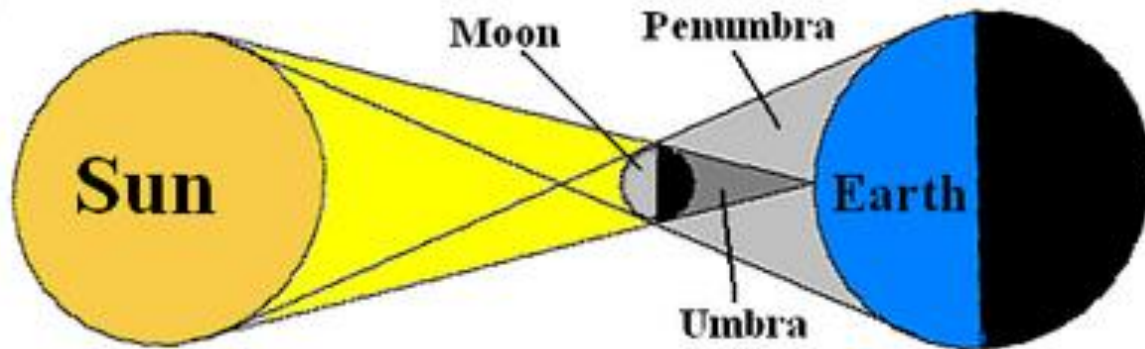


# ECLIPSES

## Solar Eclipse

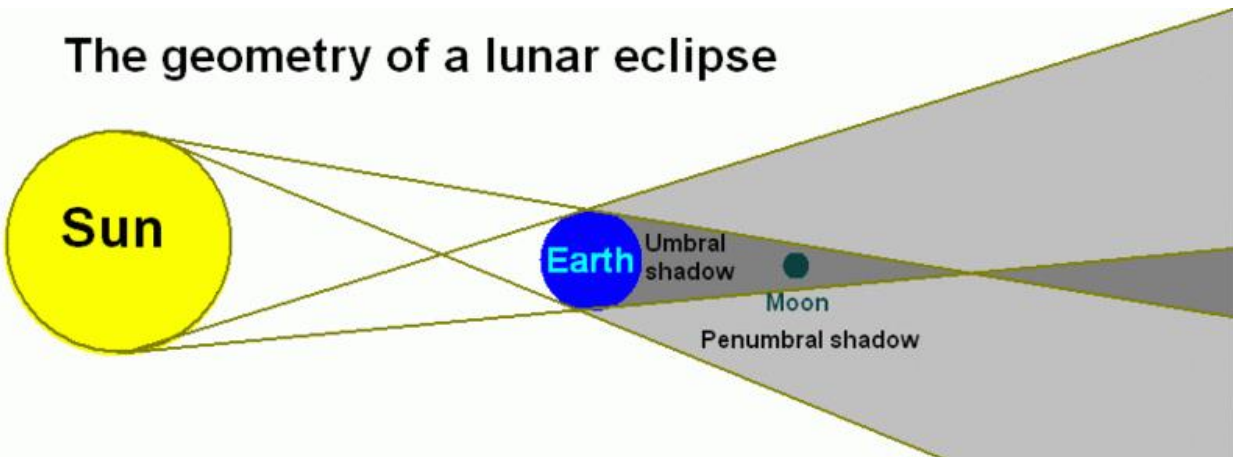
A solar eclipse can occur only during the **NEW MOON** phase. Within the umbra, a total eclipse of the Sun is seen, whereas within the penumbra, only a partial eclipse is seen.



## Lunar Eclipse

When the entire Moon passes into the Earth's umbra, a total lunar eclipse occurs. This is only possible during the **FULL MOON** phase.

### The geometry of a lunar eclipse



Because the plane of the Moon's orbit is inclined approximately  $5^\circ$  to that of the Earth, eclipses do not occur every month. See below.

