

Lunar Eclipse

It occurs when **Earth moves between the Sun and the Moon**. When this happens, Earth blocks the sunlight that normally is reflected by the Moon.

Instead of light hitting the Moon's surface, Earth's shadow falls on it.

This is an eclipse of the Moon -- a Lunar Eclipse.

Lunar Eclipse



Types of Lunar Eclipses

A lunar eclipse can occur only during Full Moon. A lunar eclipse can be seen from Earth at night. It is safe to look at a lunar eclipse directly.

There are two types of Lunar Eclipses: **Total Lunar Eclipses and Partial Lunar Eclipses.**

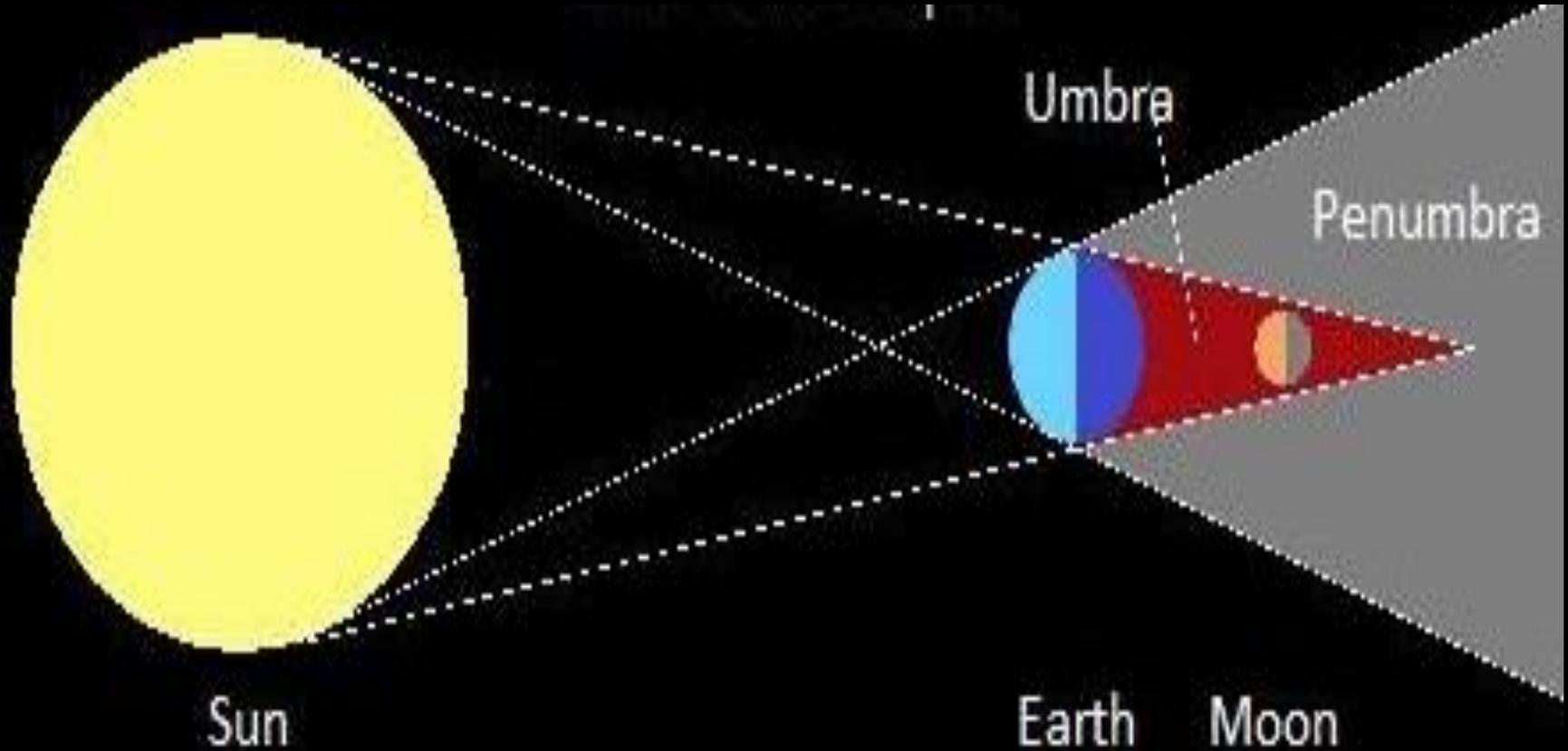
Total Lunar Eclipse

Total Lunar Eclipse occurs when **the moon and the sun are on exact opposite sides of Earth.**

Although the moon is in Earth's shadow, some sunlight reaches the moon.

The sunlight passes through Earth's atmosphere, which causes Earth's atmosphere to filter out most of the blue light. This makes the moon appear **red** to people on Earth.

TOTAL LUNAR ECLIPSE



Partial Lunar Eclipse

A Partial Lunar Eclipse happens when only a part of the Moon enters Earth's shadow. In a partial eclipse, Earth's shadow appears very dark on the side of the Moon facing Earth.

What people see from Earth during a partial lunar eclipse depends on how the sun, Earth and Moon are lined up.

Partial Lunar Eclipse



Why don't we have a Lunar Eclipse every month?

The moon's orbit is tilted.



Why don't we have a Lunar Eclipse every month?

- It's true that the moon goes around Earth every month, but it doesn't always get in Earth's shadow.
- The moon's path around Earth is tilted compared to Earth's orbit around the Sun.
- The Moon can be behind Earth but still get hit by light from the Sun.

How often do Lunar Eclipses happen?

Lunar eclipses are more common and are **visible 2 to 4 times a year from somewhere on Earth.**

Lunar eclipses are also visible from a much larger geographical area of Earth for as long as the Moon is risen in the sky during the time of the eclipse, anyone can witness it, regardless of location (weather permitting). This effectively means **around half the planet can witness some part of the eclipse.**