



Eclipse it!

SPS Science Outreach Catalyst Kit
Janessa Slone, SPS SOCK Intern

Types of eclipse

Lunar Eclipse

- Total
- Partial
- Annular

Solar Eclipse

- Total
- Partial
- Hybrid

What's the difference between a Solar Eclipse and a Lunar Eclipse?

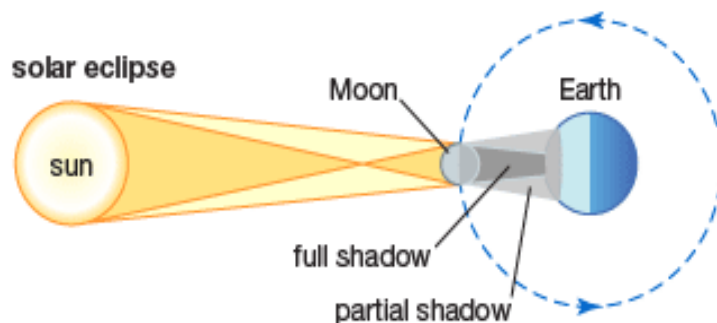
A Solar Eclipse occurs when the Moon orbits in between the Sun and the Earth. A Lunar Eclipse occurs when the Moon falls behind Earth's shadow.

- Speed of light = 3×10^8 m/s
- It takes light from the Sun ~8 minutes to reach the Earth
- Wild animals can get confused during an eclipse as they will prepare for sleep.

What are Orbits?

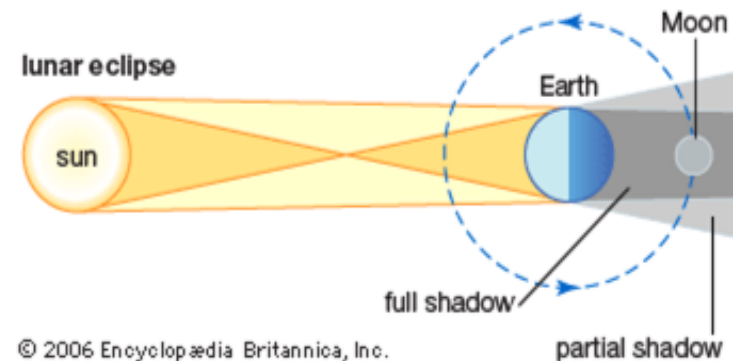
Orbits are the amount of time a space object takes to complete one lap around another object. The amount of time the Moon takes to spin around the Earth is about 27 days, and the amount of time Earth takes to spin around the Sun is 365 days!

What happens during a Solar Eclipse?



Depending on where you are in the world, you may be able to experience a total Solar Eclipse! During a total Solar Eclipse, air temperatures can drop up to 20 ° F. It will be dark outside for the duration of the eclipse, which can be 7-8 minutes long.

What happens during a Lunar Eclipse?



During a Lunar Eclipse the Moon can appear a reddish tint from the Sun's light that bends around the Earth. Because there is still technically a Full Moon, the ocean's tides are higher than normal.