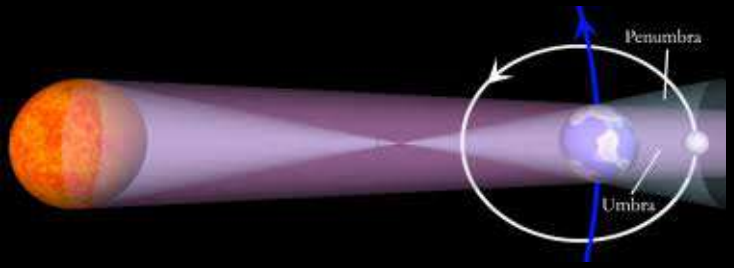
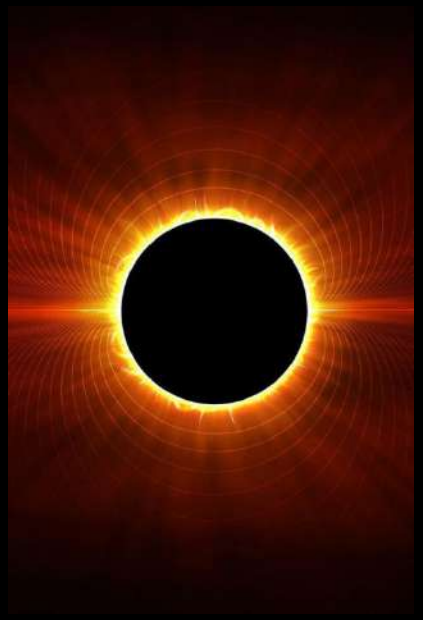
Eclipse – Solar and Lunar

1. Overview



2. Solar Eclipse
   - Video and Questions

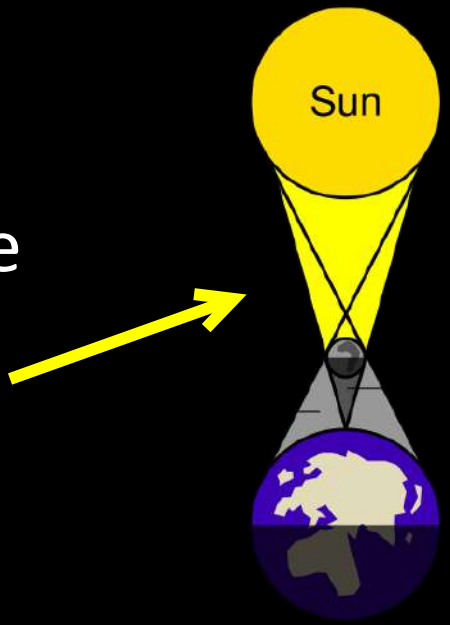


3. Lunar Eclipse
   - Online simulation

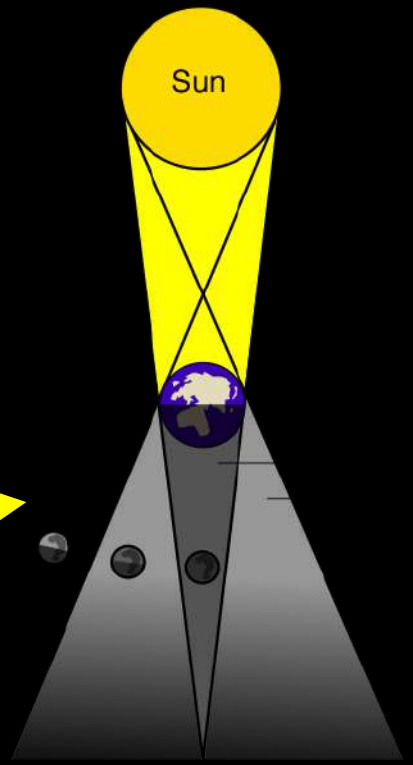
Solar vs. Lunar Eclipse

- What's the difference?

A solar eclipse is when the **Moon blocks the Sun from the Earth**



A lunar eclipse is when the **Earth blocks the Sun from the Moon**



Which is which and why?

- I know figure A is a _____ eclipse because:

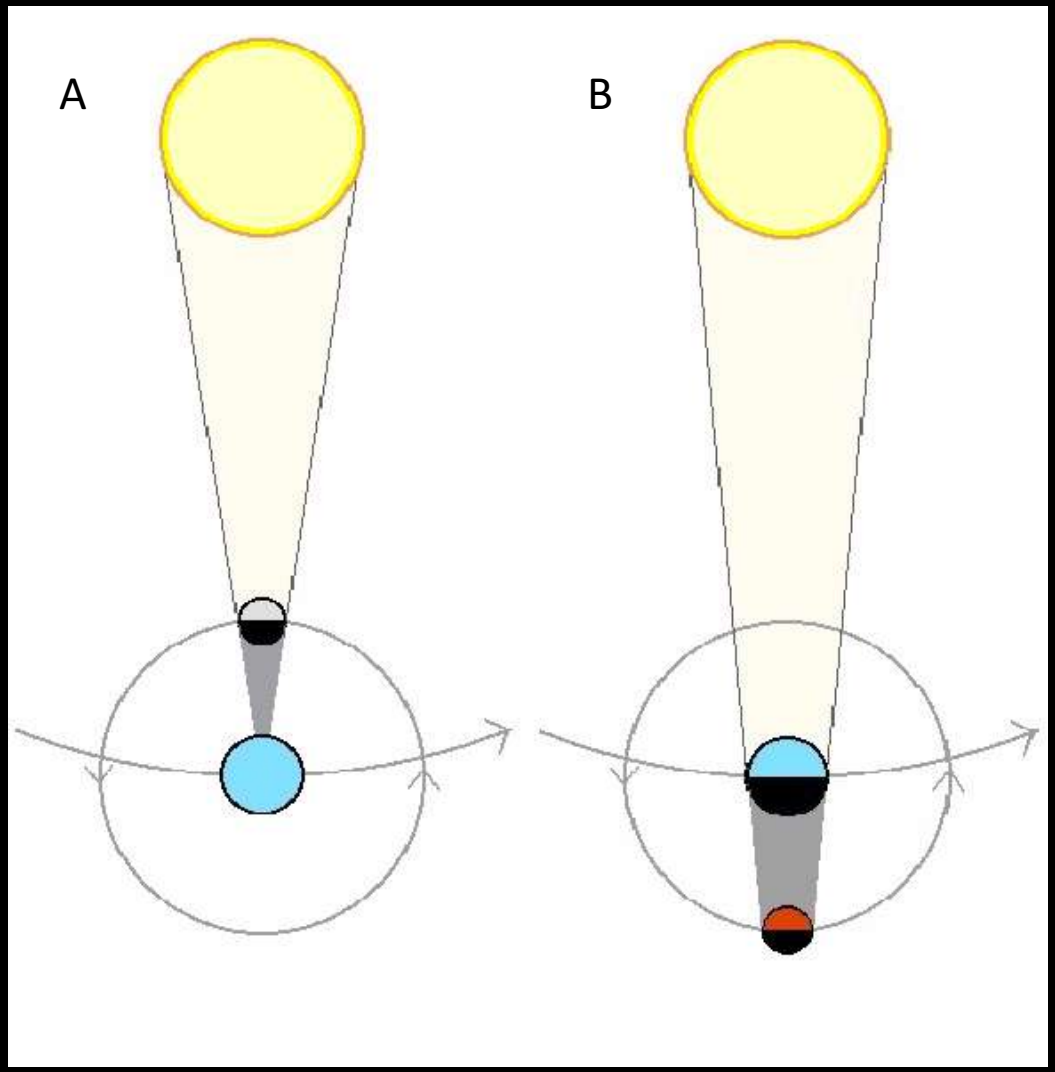
  _____

  _____

- I know figure B is a _____ eclipse because:

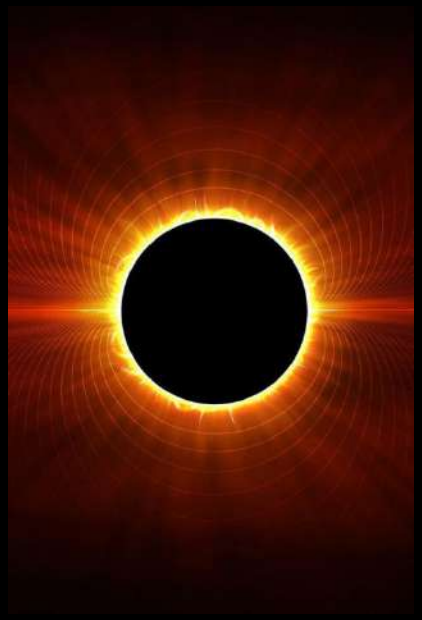
  _____

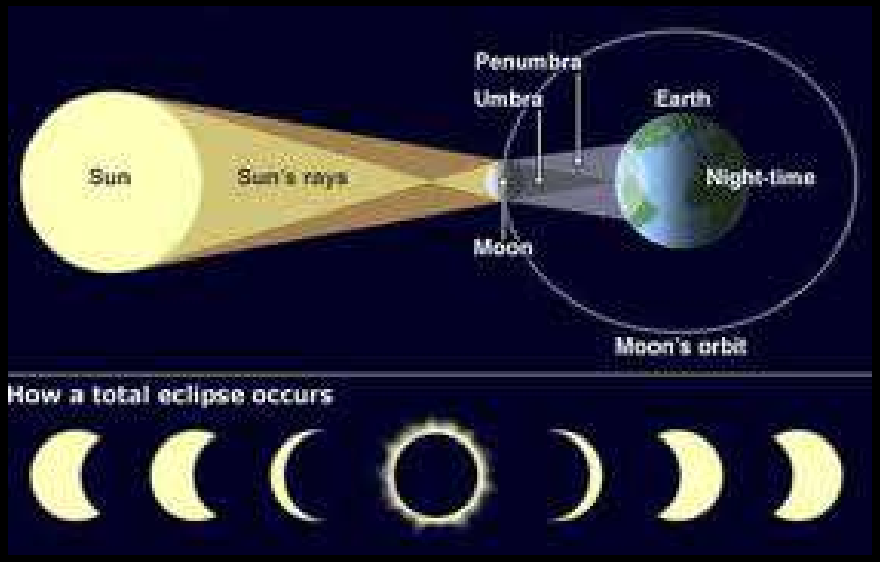
  _____

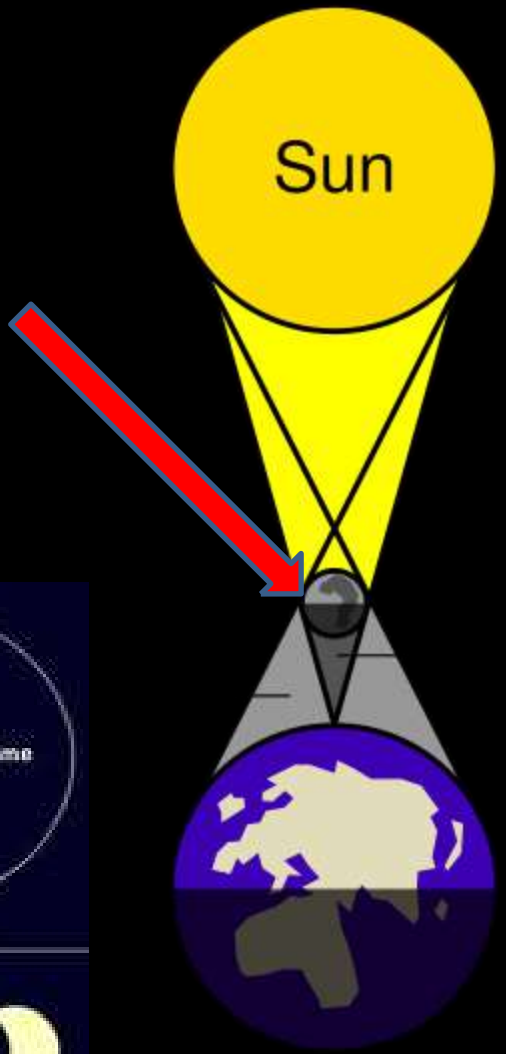


Solar Eclipse

- **<u>The Moon passes directly between the Sun and Earth creating a dark shadow over a small area.</u>**







Solar Eclipse Video and Questions

Watch the video once then again while answering the following questions in pairs.

1) What causes a solar eclipse?
2) Why are solar eclipses rare and only last a few minutes?
3) Why do solar eclipses only happen during a new moon?
4) What two things are seen during a total solar eclipse?
5) Looking directly at the sun during an eclipse creates what risks?

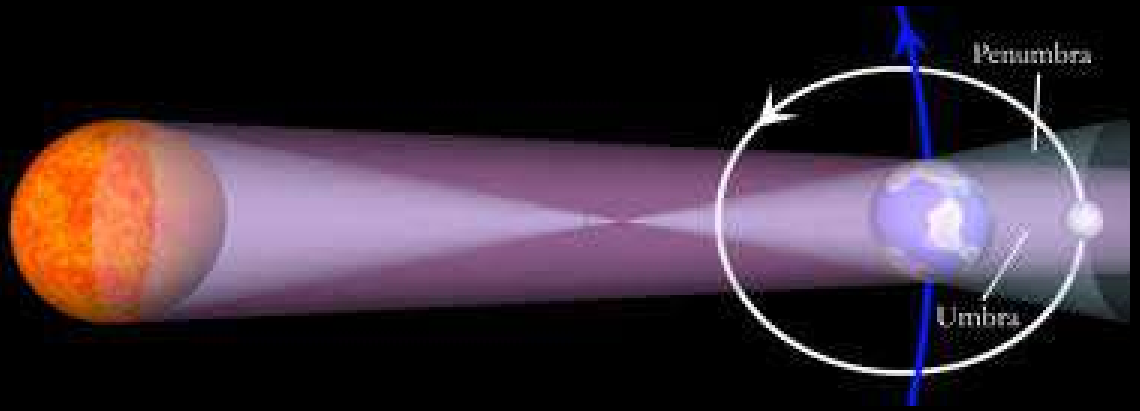
Solar Eclipse Video Answers

1) What causes a solar eclipse?
   - Having the Moon pass between the Earth and the Sun
2) Why are solar eclipses rare and only last a few minutes?
   - Because the Moon is so much smaller than the Sun
3) Why do solar eclipses only happen during a new moon?
   - During a new Moon, the Moon passes between the Earth and Sun
4) What two things are seen during a total solar eclipse?
   - The Sun's Corona and Solar Prominences
5) Looking directly at the sun during an eclipse creates what risks?
   - Eye damage

The Solar Eclipse In Varanasi – July 22, 2009

Lunar Eclipse

- In a Lunar Eclipse, the Earth blocks sunlight from **reaching the Moon**
- **The Moon appears red during a total lunar eclipse.**



NASA - Lunar Eclipse Essentials

Why does the Moon appear red during a Lunar Eclipse?

Simulation – click the image to view the simulation then answer the questions