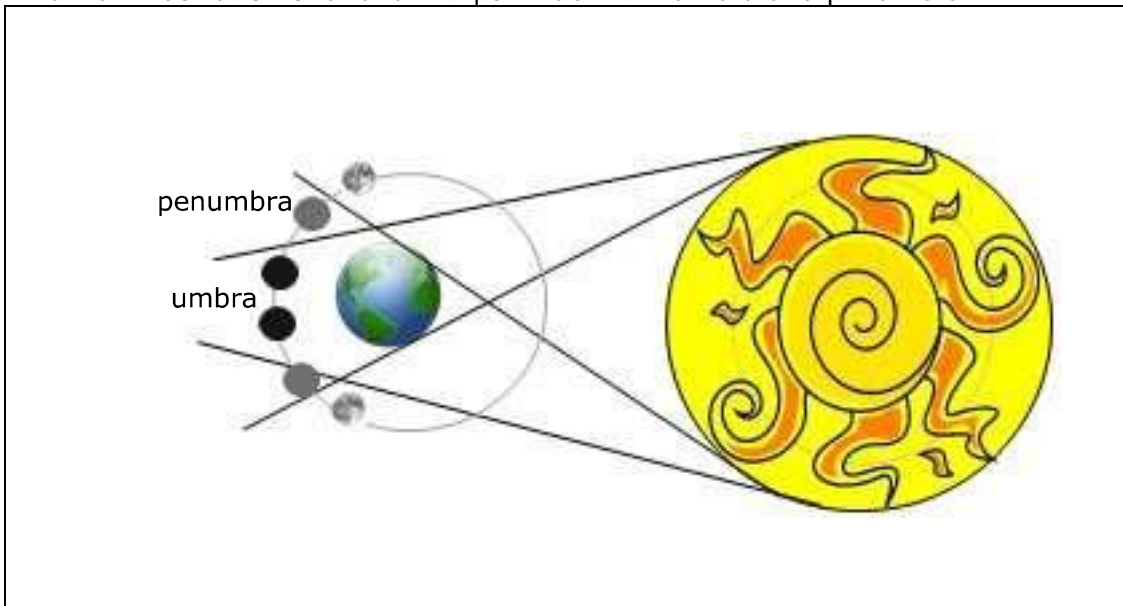


Lunar Eclipse

Check for Understanding

1. What is a lunar eclipse?
A lunar eclipse is when the sun, Earth, and moon are aligned in this order. During a lunar eclipse, the moon passes through the shadow cast by Earth.
2. Explain the alignment of the Earth, sun, and moon during a lunar eclipse
During a lunar eclipse, the Earth is between the sun and the moon.
3. How often do lunar eclipses occur?
Lunar eclipses range between 0 to 3, averaging approximately 1 ½ each year.
[<http://www.mreclipse.com/Special/LEprimer.html>]
4. Draw an illustration of a lunar eclipse. Label the umbra and penumbra.



5. Why does the moon appear red during a lunar eclipse?
As sunlight passes through the Earth's atmosphere, the light is filtered removing most of the blue. The Earth's atmosphere also refracts the light so that it bends around the Earth and can illuminate the moon.
6. Total lunar eclipses occur only during a full moon. Total solar eclipses occur only during a new moon.
7. Explain why there is not an eclipse each time there is a full moon.
The Earth's orbit around the sun and the moon's orbit around the Earth are not on the same plane. There is a little over 5 degrees difference in the planes.