

Solar Eclipse: Blackout

- Materials: 1. coin
- Procedure:
 1. Close one eye and look at an object in the distance that is bigger than you.
 2. Hold a coin a arms length in front of your open eye and look at the object.
 3. Bring the coin closer to your open eye until it is directly in front of your eye.
- Results:
 1. As the coin is brought nearer to your face, less of the object is seen until, finally the object is no longer visible.
- Why?
 1. The coin is smaller than the object, just as the moon is small than the Sun, but they both are able to block out light when they pass close to the observer.
 2. When the moon passes between the Sun and the Earth, it blocks out light just like the coin blocked your view of the object.
 3. This is called a *solar eclipse*. The Moon moves around the Earth about once every 29 days, but a solar eclipse does not occur every time.
 4. The Moon does not orbit around the Earth's equator, and the Earth's axis is tilted, so the Moon's shadow misses the surface of the Earth most of the time.

Match each word with it's meaning.

heliocentric	oval	ellipse
	Sun-centered	
inferior planets	1000 metres or 0.62 miles	kilometre
	a glow in a planet's ionosphere	
aurora	planets closer to the Sun than Earth	light-year
	an extra-terrestrial rock found on Earth	
asteroid	the distance travelled by light in a year	meteorite
	a bright streak of light caused by meteoroid	
ionosphere	a medium-sized rocky object orbiting the Sun	comet
	a region of charged particles in the upper atmosphere	

Solution