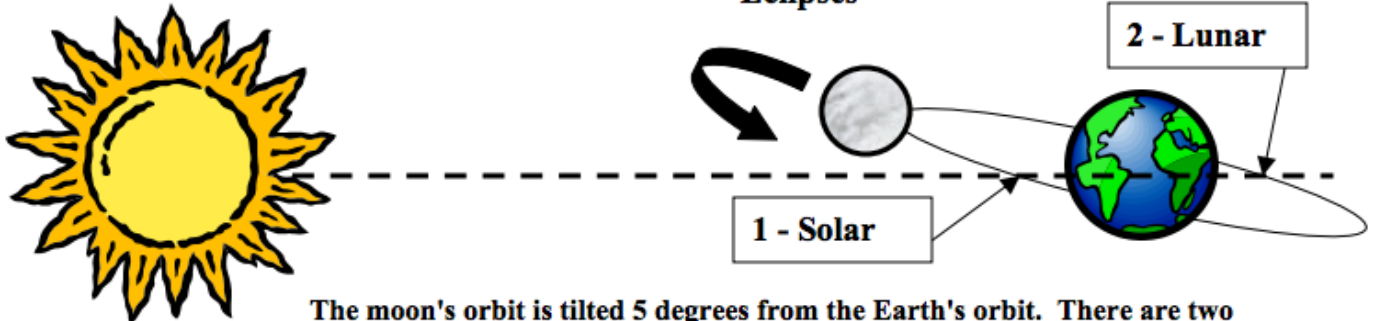


Eclipses - Solar and Lunar Eclipse

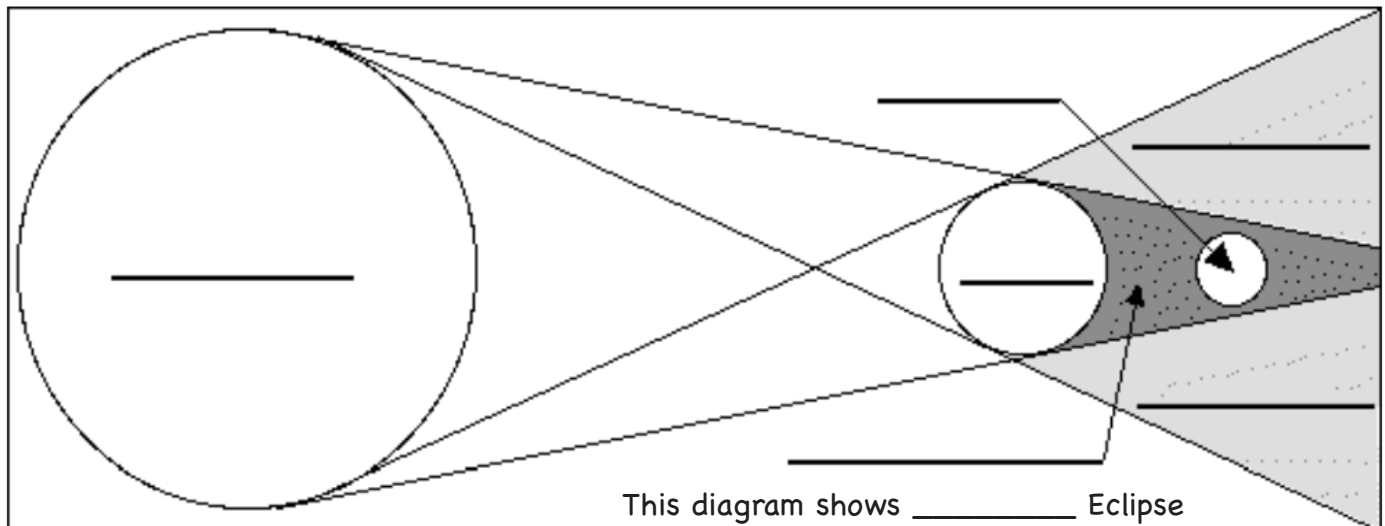
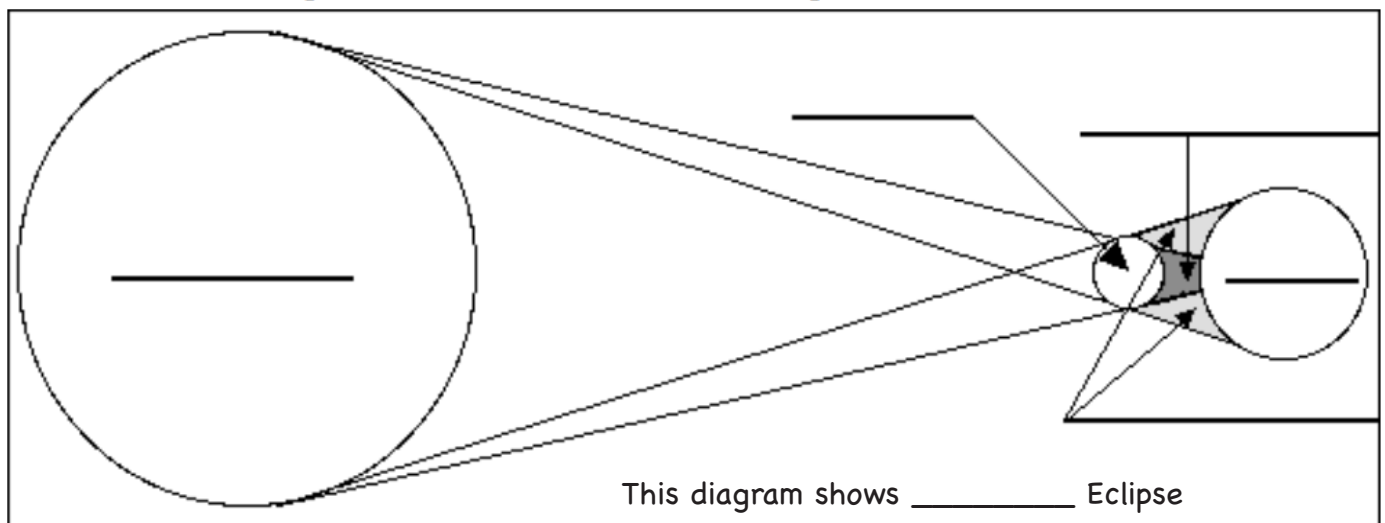
7. Sometimes the orbits of the Moon around Earth and Earth around the Sun cause all three bodies - SUN - EARTH - MOON to align so that:

- a) the Moon blocks sunlight from reaching the Earth, or
- b) the Earth blocks sunlight from reaching the Moon.

When this happens an eclipse occurs.



The moon's orbit is tilted 5 degrees from the Earth's orbit. There are two points in this orbit that can cause an eclipse to occur.



Use your text PS7 Chapter 9.2 page 339-340 and fill in the blanks in the diagrams above using this word bank:

Earth - the planet on which we live.

Moon - the natural satellite of the Earth.

Sun - the star in our Solar System.

Penumbra - (light grey) the area in which the shadow of an object (the Moon or the Earth) is partial (less dense), and the area in which a partial solar eclipse is experienced.

Umbra - (dark grey) the area in which the shadow of an object (the Moon or the Earth) is total (full and dark), and the area in which a total solar eclipse is experienced.