PHASES OF THE MOON 8A20.15

Astronomy | Planetary Astronomy | Earth-Moon Mechanics

Concept:

As the Moon orbits about the Earth in its monthly cycle, the Sun's radiant light is reflected from the Moon to the Earth and we observe the Moon's various phases. The traditional names of these phases and the relative position of Earth, Moon, and Sun are shown at

http://hyperphysics.phy-astr.gsu.edu/hbase/solar/moonphase.html

Equipment:

- Rotating Platform
- Straight Rod Clamp
- Small Extension Rod
- Double Rod Clamp
- Slotted End Clamp
- Straightened Paperclip
- Styrofoam Ball
- Light Source
- Video Camera
- Video Projector

Procedure:

1. Turn on the video projector, camera and light source.
2. Rotate the platform to move the Styrofoam ball (moon) through it's various phases as seen by the camera (Earth).*
3. If desired, adjust the geometry of the system to demonstrate solar and lunar eclipses.

Notes and Extras:

- * Be careful about power and video cables getting wrapped up as you rotate the platform.