

Outdoor Activities

Lunar Phases

Goal of Activity:

To demonstrate why we see the different moon phases.

Equipment Required:

1. A Smooth Ball
2. Clear sunny day when both the Sun and Moon are visible

Instructions:

During the first quarter and waxing gibbous phase the moon is visible in the afternoon on clear sunny days. During the third quarter phase the moon is visible early in the morning.

During this period have the student find the moon and have him/her hold the ball at arms length just under the moon.

Month 2004	Week for the First Quarter	Week for the Last Quarter
January	Jan. 29	Jan. 14
February	Feb. 27	Feb. 13
March	Mar. 28	Mar. 13
April	Apr. 27	Apr. 12
May	May 27	May 11
June	June 25	June 9
July	July 24	July 9
August	Aug. 23	Aug. 7
September	Sept. 21	Sept. 6
October	Oct. 20	Oct. 6
November	Nov. 19	Nov. 5
December	Dec. 18	Dec. 3

Observations:

The shadow on the ball will look exactly the same as it does on the moon. Students can follow the phases as the moon progresses from crescent to full moon from day to day and witness the shadow size decrease. Also notice the position of the Sun during first quarter moon phase and Last quarter moon phase. The Moon is to the left of the Sun during for First Quarter and Right of the Sun during Third Quarter. When the Moon is left of the Sun it's an evening Moon. When the Moon is on the right side of the Sun it is a morning Moon.

Lunar Motion across the sky

Goal of Activity:

To monitor the moon's progress and phase from day to day as the moon orbits the earth.

Materials:

1. Pencil, tape and Tracing paper

Instructions:

This could be a homework project. Have the students tape the paper on a southern facing window. Ask them to draw a silhouette of the houses and trees on the horizon near the bottom of the page. At the same time each night have the students draw the moon from Crescent to Waxing Gibbous phase. Use the houses and trees as reference points. See fig 1.

