



## Virginia Region II Annual Teacher Night at Jefferson Lab 2025

**Activity Title:** **Foam Board Moon Phases**

**Type:** Demonstration (Demo)

**Grade Level:** Grade 5

**Time Allotment:** 15 minutes

### Objectives with Correlated SOLs:

4.6 The student will investigate and understand that there are relationships among Earth, the moon, and the sun. Key relationships include:

c) The causes for the four major phases of the moon and the relationship to the tide cycles.

Objectives:

The student will:

- Model the phases of the moon using a foam board and foam balls to demonstrate how the moon's position relative to Earth and the sun causes its changing appearance (4.6c).
- Explain how sunlight reflects off the moon's surface, creating the four major phases: new moon, first quarter, full moon, and last (third) quarter (4.6c).
- Use a hands-on demonstration to show the sequence of the four major moon phases and describe their characteristics (4.6c).
- Discuss how the phases of the moon are connected to the tide cycles on Earth (4.6c).

### Materials List (including equipment):

- Foam board (black) – to serve as the base for your model.
- Foam balls (4) – to represent the moon in different phases.
- Light source (lamp or flashlight) – to act as the sun and demonstrate how light creates moon phases.
- Black paint or marker – to shade half of each foam ball, showing the shadowed portion of the moon.
- Hot glue gun or strong adhesive – to secure the foam balls to the board.
- Labels or index cards – to identify each phase (New Moon, First Quarter, Full Moon, Last Quarter).

### Teacher Contact Information:

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