Name _____ Class _____ Date _____

Quick Lab

Eclipses

MATERIALS

- modeling clay
- metric ruler
- sheet of paper
- penlight

SAFETY 

PROCEDURE

1. Make two balls from **modeling clay**, one about 4 cm in diameter and one about 1 cm in diameter.
2. Using a **metric ruler**, position the balls about 15 cm apart on a **sheet of paper.**
3. Turn off any nearby lights. Place a **penlight** approximately 15 cm in front of and almost level with the larger ball. Shine the light on the larger ball. Sketch your model, and note the effect of the beam of light.

4. Repeat step 3, but reverse the positions of the two balls. You may need to raise the smaller ball slightly to center its shadow on the larger ball. Sketch your model, and again note the effect of the light beam.

ANALYSIS

1. Which planetary bodies do the larger clay ball, the smaller clay ball, and the penlight represent?

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Eclipses *continued*

2. As viewed from Earth, what event did your model in step 3 represent? As viewed from the moon, what would your model represent?

3. As viewed from Earth, what event did your model in step 4 represent? As viewed from the moon, what would your model represent?

4. In what ways could you modify this activity to more closely model how eclipses occur?