

Name_____ Date_____ Section_____

8th Grade Science/ Unit 2 Space Science

Title: Activity 7 Moon Phases and Eclipses

Challenge Question: How do Earth, the moon, and the sun affect each other?

Background:

Define gravity.

Materials:

Space Science book

Vocabulary: Define the following terms in your own words.

Term	Definition	Picture or Example
satellite		
lunar phases		
eclipse		
umbra		
penumbra		

Procedures:

1. Read pages 152 - 159 in the *Space Science* book.
2. Answer questions 1 - 3, 5 - 8, and 10 - 13 from the reading.
3. Do Lesson Review on page 161, questions 1 - 11.
4. Create definitions for the Vocabulary. Answer Analysis Questions.
5. Write Conclusion.

Data/Results: (*Write your responses to the book questions on a separate sheet of paper.*)

Analysis Questions:

1. Why do you think the moon is sometimes not visible in the sky at all, no matter how hard you look? (Hint: Look at the diagram of the moon's orbit. Consider what people at different locations would see. Use just one of the moon's positions.)

2. Imagine you are an astronaut living on the near side of the moon for a month. From your position on the moon, do you think you would see "phases of Earth"? Explain.

3. What phase will the moon always be in when a lunar eclipse happens? A solar eclipse? Explain.

Conclusion: How do Earth, the moon, and the sun affect each other? *(Use evidence and examples from the assigned reading to support your answer.)*
