

Name_____ Date_____ Section_____

8th Grade Science/ Unit 2 Space Science

Title: Activity 8 Earth's Tides

Challenge Question: What causes tides?

Background:

How do Earth, the moon, and the sun interact? What force causes the interactions between Earth, the moon, and the sun?

Materials:

Space Science book

Vocabulary: Define the following terms in your own words.

Term	Definition	Picture or Example
tide		
tidal range		
spring tide		
neap tide		

Procedures:

1. Read pages 166 - 173 in the *Space Science* book.
2. Answer questions 1 - 3 and 5 - 13 from the reading.
3. Do Lesson Review on page 175, questions 1 - 9.
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. During the waxing crescent and waning crescent phases of the moon, Earth, the sun, and the moon form a 45° angle. What would you expect the tidal range to be like during these phases? Explain.

2. How many minutes pass during the time it takes the tide to cycle 14 times?

Conclusion: What causes tides? (Use evidence and examples from the assigned reading to support your answer.)

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