

Understanding Eclipses

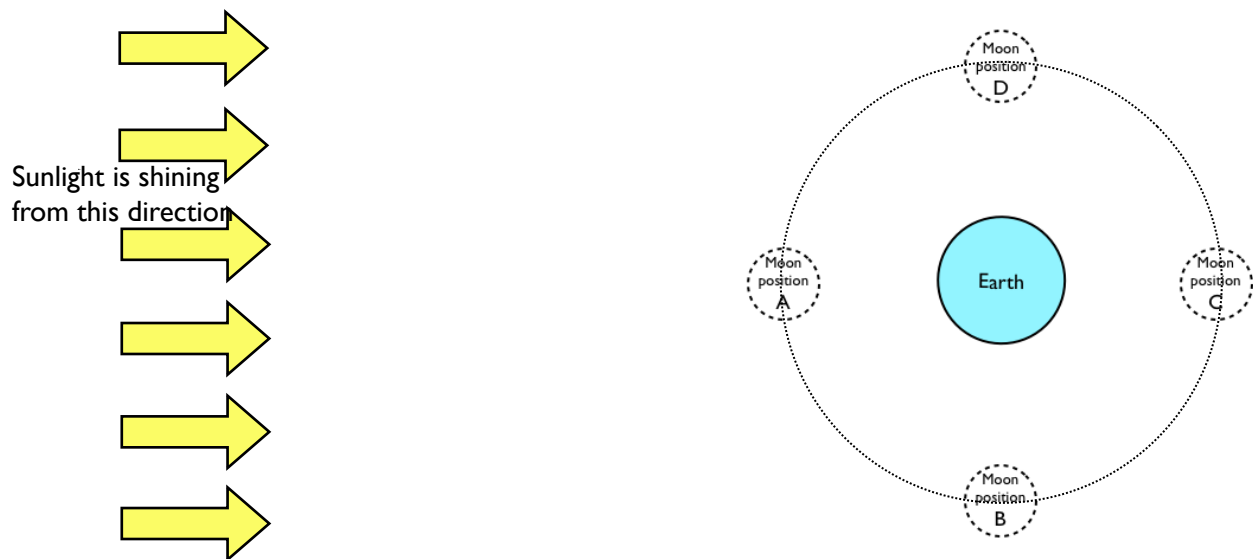
Instructions: You and your partner should **discuss your responses** to each question, then write your answers in your own packet.

1: Lunar or Solar Eclipse?

- a. During a LUNAR eclipse, something is blocking the _____.
<Sun/Moon>
- b. During a SOLAR eclipse, something is blocking the _____.
<Sun/Moon>

2: Which positions?

This diagram shows an OVERHEAD view of the sunlight and Earth, with the Moon drawn at 4 possible positions. (The diagram is not to scale!)



- i. Choose the Moon position that you think goes with a Solar Eclipse: A B C D
- ii. Choose the Moon position that you think goes with a Lunar Eclipse: A B C D
- iii. What is the phase of the Moon when it is at the position you chose in part i.?

At this position, the phase of the Moon is _____.
<new/crescent/half/gibbous/full>

- iv. What is the phase of the Moon when it is at the position you chose in part ii.?

At this position, the phase of the Moon is _____.
<new/crescent/half/gibbous/full>

3: How often do eclipses occur?

On October 27, 2004 (when the Red Sox won the World Series!), there was a lunar eclipse. Two friends at the game wondered how often lunar eclipses happen.



Jade said: "Lunar eclipses must happen every month, when the Earth is between the Sun and the Moon."

Ruby said: "I don't think lunar eclipses happen every month. Otherwise why would the news make a big deal out of this eclipse?"

Which friend do you agree with? Explain why.

a. I agree with _____ because _____

b. Sketch and LABEL a diagram of the Earth, Moon, and Sun. Include information in your picture about the Moon's orbit shape, to help us understand your answer.