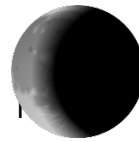


Total Lunar Eclipse Worksheet



On Sunday Sept 27, 2014 starting at 8:07 PM (CDT) a lunar eclipse will start and will be visible from most of the continental US (total from 9:11 to 10:23 pm, then partial again till 11:27 pm). The moon will be in the East. (For viewers on the west coast, it will be near the horizon since will start at 6:07 pm EDT).

What time did **you** start? _____ **Your Observing Location:** _____

What time did **you** stop? _____ **Your Observing Partner:** _____

1. **Observation.** About every 10 minutes shade in the darkened region of the Moon that you observe in a circle below (in order) to indicate what the Moon actually looked like. Be sure to also indicate the time you made each observation. **Note:** *You do not have to fill in every circle.*

Shade in darkened region	1	2	3	4
Enter time				
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19

Please note which direction is "up" in your sketches: East? North? Away from the horizon? _____

Thanks to Erik Christensen of South Florida College for creating and sharing this worksheet.

2. **Lunar eclipse vocabulary.** Look up the definition of the following terms:

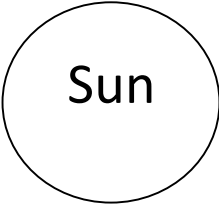

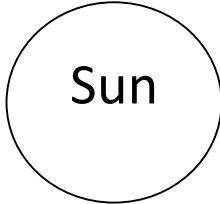

Penumbra	
Umbra	

3. What **color** did the Moon change to and when? Why does this happen?
Was the color uniform across the Moon?



4. During a lunar eclipse, what would you see if you were **standing on the surface of the Moon**?

5. Draw in the **location of the Moon** for each type of eclipse.

<p>Lunar Eclipse</p> <div style="display: flex; justify-content: space-around; align-items: center; height: 150px;"> <div style="text-align: center;">  <p>Sun</p> </div> <div style="text-align: center;">  </div> </div>	<p>Solar Eclipse</p> <div style="display: flex; justify-content: space-around; align-items: center; height: 150px;"> <div style="text-align: center;">  <p>Sun</p> </div> <div style="text-align: center;">  </div> </div>
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6. **Compare and contrast** a lunar eclipse to a solar eclipse. Complete the following table:

	Lunar Eclipse	Solar Eclipse
Describe what is happening		
Phase of the Moon?		
Safety precautions when viewing?		
Estimate the duration of the event		
Estimate the number of people who can view it		