

# Total Lunar Eclipse Worksheet



Name: \_\_\_\_\_

On Wednesday, January 31, 2018 starting at 11:48 UT (3:48 PST; 5:48 CST) a total lunar eclipse will be visible from western and central US (totality from 12:51 thru 14:07 UT). You should observe from a location with an unobstructed view of the western horizon, preferably from a high location. For many in the US, the Moon will set partially or completely eclipsed just at sunrise. For more details see <https://eclipse.gsfc.nasa.gov/LEplot/LEplot2001/LE2018Jan31T.pdf>

What time did **you** start? \_\_\_\_\_ **Your Observing Location:** \_\_\_\_\_

What time did **you** stop? \_\_\_\_\_ **Your Observing Partner:** \_\_\_\_\_

- 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.*

	1	2	3	4
5	6	7	8	9
10	11	12	13	14

*Please note which direction is "up" in your sketches: East? North?*

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

*This worksheet may be freely copied.*

*Prof. Patricia Reiff, Rice University reiff@rice.edu*

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

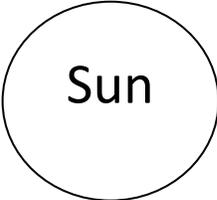
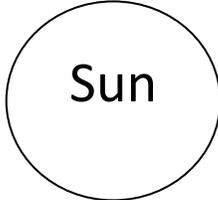
<b>Penumbra</b>	
<b>Umbra</b>	

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

4. During a lunar eclipse, what would 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><b>Lunar Eclipse</b></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><b>Solar Eclipse</b></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		