

Virtual Moon Journal Part II

After becoming an expert in *Starry Night* during Part I, you're now ready to begin using the program to investigate the Moon and its phases. Instead observing outside for weeks, we'll take Moon data virtually using *Starry Night*.

Open the *Starry Night* Application

- Open either the Firefox or Safari web browser. (Chrome was having difficulty working with *Starry Night* the last Mr. Bryant checked.)
- Navigate to www.mrbryant.net
- Navigate to our Astronomy class page and find the link: [Starry Night Logon Screen](#). Click that and once you're able to enter the Login Code, enter
 - **DCLZuQ1**
- Click the **Launch App** button under *Starry Night High School*.
- It may take a few moments for the application to load in your browser. If it takes more than a couple of minutes, let your teacher know.

Change the date, time, location, and display on *Starry Night*

- Close the SkyGuide by clicking on the left arrows at the bottom of the screen near the field of view indicator (FOV).
- On the top toolbar, change the location. Choosing current location should work to change the location to Bowling Green, KY
- Click the pause button at the top to stop time.
- Change the Date to August 30, 2017
- Change the Time to 18 hours (6PM). You might need to adjust the time with the play, forward, and back buttons as well as changing the time multiplier to 3 seconds or so.

Basic Lunar Observations

1. Locate and select the Moon and center it in your window by using the target (bull's-eye) tool. You can then zoom in to observe the phase.
 - a. Which side of the Moon (right or left) is most illuminated? _____
 - b. What phase is the Moon in? _____
 - c. With the Moon selected, use the information tool to determine how much of the Moon's surface is illuminated—the % Illumination = _____ %
 - d. Where is the Moon at this time? (What direction?) _____
 - e. Where is the Sun at this time? (What direction?) _____
 - f. Use the Ruler tool to measure the angular separation (in degrees) between the Moon and the Sun. (You may need to zoom out to see both at the same time.)
Angular Separation = _____ degrees
 - g. Select the Moon again and center it using the target tool again. Record the Azimuth (Az) and the Altitude (Alt) of the Moon in degrees (don't worry about the minutes and seconds).

Azimuth (Az): _____ degrees

Altitude (Alt): _____ degrees

