

Name: _____ Date: _____ Block: _____

Celestial Diary Project

MOON JOURNAL ASSIGNMENT

This assignment has two components. Both must be submitted. All students must complete this assignment.

☐ Part 1: Moon Journal

Throughout the course, on at least four different days/nights (spaced out is best), do the following:

- Take a photograph of the moon. (Try to take all your photographs from the same location, for consistency.)
- Classify the phase of the moon.
- Record other important details such as the date, weather, time.
- Optional: record other observations.

☐ Part 2: Report

Then, do some external research and make a simple video, powerpoint, OR written report explaining your answers to these questions:

- 1. *Where does the light from the moon come from?***
- 2. *Why does the moon cycle through phases?***

All sources of information need to be cited.

STARGAZING

Go stargazing for 60 minutes in total. Bring a star chart with you.

(Recommended: <https://skyandtelescope.org/astronomy-resources/make-a-star-wheel/> ; feel free to use a phone app such as “Night Sky” in addition.)

For this assignment, you will need to submit a **1-page** (minimum, single-spaced, includes photo) **written response** including the following:

1. A photo of yourself stargazing. (Use flash or a flashlight.)
2. Summarize your experience. Where did you go? When did you go? What happened on your trip? What stars and constellations were you able to see? Which ones were you unable to see or did you have difficulty finding? Include any other details that you think will be helpful for your reader.
3. Reflect on your response, based on one or more of the following prompts.
 - a. How did you feel before and after the experience?
 - b. Has your view of yourself or the world changed? If so, how?
 - c. Did your experience challenge any of your existing understandings or knowledge about the universe?
 - d. Was stargazing the experience that you expected it to be?
 - e. What thoughts, questions, or realizations did you think of while stargazing?

EXTRA CREDIT RESEARCH

There are many ways you could achieve a score of *Extending* for this project, as long as you *extend* your understanding of the universe, in a meaningful way. Your research project should be **half a page** (minimum, single-spaced), typed, plus citations.

Some suggestions just to get your ideas flowing:

- Moon journal:
 - Do additional research on the moon and some of its characteristics (e.g. tide locking, its external features and how they arose, how the moon came to be)
- Stargazing:
 - Record how the celestial sphere changes over the course of multiple weeks, or over the course of a night.
 - Observe a rare celestial phenomenon (e.g. meteor, eclipse).
 - Learn how to navigate using the stars' positions in the sky.
- Research:
 - Select a topic that interests you and learn all you can about it. Summarize your findings in the method of your choice. (This could be formal, like in a presentation or a report, or more creative, like in a piece of artwork or poem. However, if you are going the creative route, make sure that the *results of your research are clear*. You may need to attach a supplemental write-up to explain the research demonstrated in the creative representation. E.g. it would not be sufficient to simply make a celestial sphere lamp craft, or a painting of the night sky, without a write-up demonstrating that you have *extended* your understanding.)
 - Possible Research Ideas:
 - History of astronomy
 - Methods and techniques used in astronomy
 - The Big Bang Theory
 - Types of celestial bodies
 - How stars form; their life cycles
 - Formation of the solar system or one of its elements (e.g. the Sun or the Moon)
 - A famous astronomer
 - Animals using celestial navigation

MARKING SCHEME:

You are graded depending on the amount of effort you put in and the number of assignments you complete. All students must complete the moon journal assignment to pass this project.

# Assignments	Assignments Complete	Grade
1	Moon Journal ONLY	Developing
2	Moon Journal + Stargazing	Proficient
2	Moon Journal + Extra Credit	Proficient
3	Moon Journal + Stargazing + Extra Credit	Extending

Read instructions carefully! Full credit for assignments is only awarded for complete assignments.