

Title: Moon Puzzle

Objective: Recognize and describe the moon phases

Time: 5-10 minutes

Materials Needed: Moon Phase Puzzle Cards (found at jeffersfoundation.org); cards will need to be cut into puzzle pieces; for reference, use a chart with moon phases on it. (The card document can be used as a chart.)

Directions:

1. Each student is given a piece of the Moon Phase Puzzle.
2. Ask students to find a partner holding the other half of their Moon Puzzle piece.
3. After finding a partner holding their puzzle piece, students will greet their partner and examine their completed Moon Phase Puzzle piece. Students should discuss ways to describe that moon phase to their classmates and prepare to share their observations with the class.

Discussion Questions:

1. How did you and your partner decide that your puzzle pieces were a match?
2. What details did you use to help you identify your moon phase?
3. Why does the moon look different throughout the month instead of appearing as just one shape/phase?
4. How can you identify the first and last quarter moons?

Greeting

Theme: Astronomy

Topic: Moon Phases

Suggested Grade Level: 2-4

Indoors or Outdoors: Either

Science and Engineering Practices:

1. Developing and using models; 8. Obtaining, evaluating, and communicating information.

Crosscutting Concepts:

1. Patterns; 2. System and system models.

Disciplinary Core Ideas:

Earth and Space Sciences: ESS 1: Earth's place in the universe.

Background Information:

- There are 8 phases of the moon: *new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, last/third quarter, waning crescent, new moon (starts again).*
- The moon travels in a counterclockwise path as it revolves around the Earth.

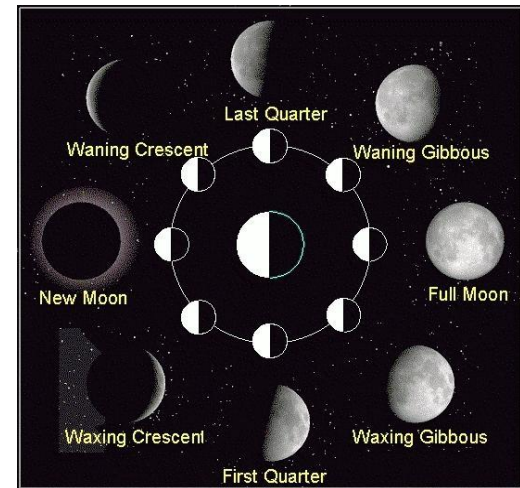
Additional Resources:

- https://www.calculatorcat.com/moon_phases/phasesnow.php Current moon phase calendar
- *Minnesota Weatherguide Environment™ Calendar* – moon phases are included on each calendar page
- <https://www.moonconnection.com>

Correlates with:

Activity - Moon Phase Line Up (p. 55)

Interdisciplinary Lesson - News Flash: Eclipse Coming Soon (p. 108)





New Moon



Waxing Crescent Moon



First Quarter Moon



Waxing Gibbous Moon



Full Moon



Waning Gibbous Moon



Last Quarter Moon



Waning Crescent Moon