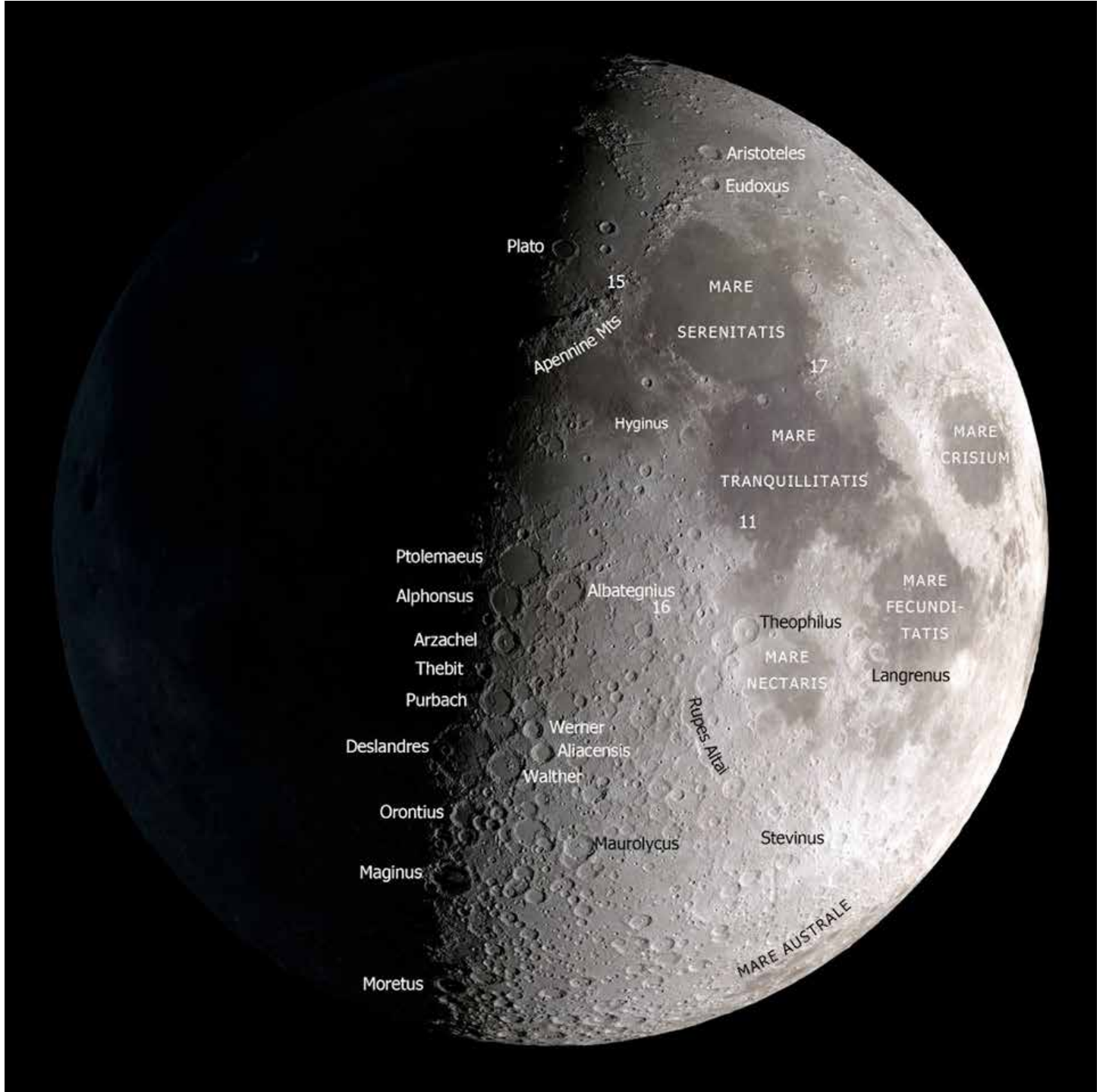


ASTRONOMY

LESSON PLAN



WOLF RIDGESM
ENVIRONMENTAL LEARNING CENTER



CLASS DESCRIPTION: An Earth and Physical Science Class

Students will explore the night sky using a telescope and binoculars. Views of stars, constellations, nebulas, planets, the moon, meteors, and the northern lights will thrill and inspire students. The science and folklore of the night sky will be discussed and explored.

Total time: 1 hour outdoors

Audience: 6-20 students, 4th grade through adult

Activity level: easy

Travel: 1/4 mile

Total uphill travel: 20 feet

PURPOSE

What can we learn about our universe by exploring the night sky? What tools can we use?

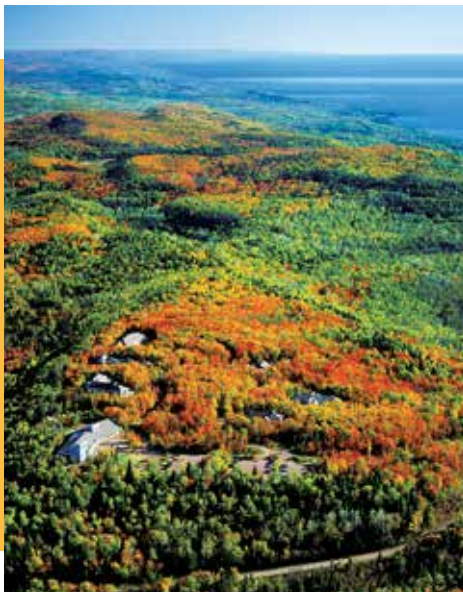
CONCEPTS

1. The sun is the primary source of energy for life on earth.
2. Everything in nature has intrinsic value, which may be beyond our understanding.

OUTCOMES

Upon completion of Astronomy class students will be able to:

- Identify the 5 circumpolar constellations and the north star.
- Experience the light gathering power of a good telescope.
- Value the beauty of the night sky relatively undimmed by artificial light.
- Give an example of a constellation myth.



Our mission is to develop a citizenry that has the knowledge, skills, motivation and commitment to act together for a quality environment.

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Wolf Ridge Environmental Learning Center and the USDA are equal opportunity providers and employers.



Equipment

- telescope
- telescope hand controller
- headlamp
- flashlight with red lens
- binoculars
- telescope lens filters
- green laser pointer
- hand warmer in winter
- high power telescope lens
- monthly sky calendars
- constellation charts
- star maps

Appendices

- Glossary
- Additional Information
- Optional Activities
- References
- Sources

Set-up (15 min.)

- Classroom/class prep description
- Safety Management

I. Introduction (10 min.)

- A. Greeting
- B. Class Overview
- C. Assess Learner Level

II. What can be seen with our eyes? (10 min.)

- A. Naked-eye Viewing
- B. Quick Laser Tour
- C. The Sun as Earth's Primary Energy Source

III. What can we observe with tools? (20 min.)

- A. Telescope
- B. Viewing Guidelines
- C. Telescopic Delights
- D. Binoculars

V. Why is the night sky important? (10 min.)

- A. Review
- B. Stewardship Actions

Clean-up (15 min.)