

Further Exploration

Online Discovery

The [Moon Mineralogy Mapper](#) is one of NASA's instruments onboard the Indian Space Research Organization's Chandrayaan-1 spacecraft. This spectrometer will map the entire lunar surface, and reveal the minerals of which it is made.

NASA's [Lunar Reconnaissance Orbiter](#) mission will return detailed information about the surface of the Moon and the lunar environment through instruments including spectrometers and radar.

The [Clementine](#) mission tested instruments in a long-term space environment and acquired a global multispectral map of the Moon's surface.

Classroom Resources

[The Electromagnetic Spectrum](#) —Imagine the Universe helps middle- to high-school students investigate the electromagnetic spectrum through interactive web pages. Lesson plans explore electromagnetic radiation and emission spectra.

[Moon Mineralogy Mapper Education Website](#) —A series of hands-on inquiry-based activities engage middle-school students in understanding and interpreting reflectance spectra from Earth and Moon rocks. These activities are part of a suite of educational resources that investigate the geologic history of our Moon, the Chandrayaan-1 mission, spectrometry, and future lunar exploration.

[Active Astronomy](#) —Hands-on activities and demonstrations engage middle- to high-school students in learning about infrared light.

[Cool Cosmos](#) — What does a cat look like in infrared? Tour infrared Yellowstone and learn more about this portion of the electromagnetic spectrum through discussion, activities, images, and games.

[ALTA II Reflectance Spectrometer for the Classroom](#) —The ALTA is a rugged, simple classroom instrument designed to help students in grades 5 through undergraduate learn about light, color, and spectroscopy. Using the spectrometer, students can collect data reflected from rocks, minerals, and other materials in specific wavelengths of the visible to infrared electromagnetic spectrum. Lesson plans are included.

About this Poster

This is one of a [three-poster set](#) that examines how our geologic understanding of the Moon will be used as we plan to live and work there in the future. The **poster front**, designed for **sixth- to ninth-grade students**, illustrates how scientists can collect and use visible and invisible electromagnetic radiation reflected from the Moon to identify rocks and minerals on its surface. This information will help scientists and engineers plan future lunar exploration. The **poster back** is designed to provide **educators** with background information, ideas for lessons, and resources to support further student exploration.

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