Mars Exploration Program

Principal Investigator:

Funders:

Connect your students to the excitement and learning opportunities of NASA's missions to Mars through a series of four Mars education modules. The hands-on, inquiry-based activities integrate Earth, physical, and planetary sciences and involve students in questions central to current Mars exploration. Students use experiments, models, Earth analogs, and image analyses to investigate a question central to Mars research. The activities use everyday materials and do not require computers or previous knowledge of planetary exploration. The Teacher Handbook includes thorough background information, activity procedures, assessments, and suggestions for using technology and telecommunications.

All modules include a Teacher Handbook and Student Image Set. Developed and published in collaboration with NASA.

Getting Started (grades 4-10)
This comprehensive introduction to studying Mars in the classroom illustrates how the series develops students' understanding of Mars, the solar system, and planetary science.

Grand Canyon of Mars and How It Formed (grades 6-12)
Students investigate the formation of Mars' 3,000 mile-long canyon. After examining different ways that a planet's surface can be altered, they develop hypotheses to explain the canyon's formation and amass evidence from their work to support their ideas.

Great Martian Floods and Pathfinder Landing Site (grades 6-12)
Students learn how sediment, landforms, and drainage patterns provide clues about a planet's geologic history. Using evidence from their work to make a case for the presence of water on Mars in the past.

Is There Water on Mars? (grades 9-12)
By investigating the role air pressure plays in maintaining liquid water, students learn core physical science concepts and use them to deduce the water situation on Mars. They use evidence from thir experiments as well as data and images from NASA's missions to Mars to argue whether Mars has (or ever had) surface water.

> *"[In the Mars curriculum] there is plenty of room for students to develop their own hypotheses and amass evidence to support their ideas. They loved it. Every day they got bolder with their speculations and defended them with better detail. "*
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> P.B., Lewiston, Maine