Exploring Origins

Education

The Genesis mission centers on, but is not limited to, the study of science. *Exploring Origins* offers educators an opportunity to incorporate interdisciplinary studies, including language arts and speech communication, into their curricula.

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Goal

The goal of *Exploring Origins* is to help students understand the cumulative nature of scientific knowledge and technological advancements and to understand the theoretical basis for the Genesis mission. By exploring ideas about the origins of the solar system held by various cultures throughout the ages, students will gain an understanding that the Genesis mission is providing data to answer age-old questions: How did the solar system come to be as we see it today? How did the Earth, sun and other planets form? Students will examine the current scientific theory on the origin of the solar system and will develop questions that could be investigated to further the scientific understanding. After researching the previous knowledge base and technology developments that were necessary for Genesis to become a reality, students will design a new mission to collect further evidence to contribute to the scientific understanding of the solar system origins.

Better Understanding

In addition to the cumulative nature of scientific knowledge, students will become acquainted with other aspects of the Nature of Science. These aspects include science as a collaborative effort, the revisionary nature of scientific theories, the need for evidence to support scientific ideas, the necessity of testable hypotheses, and the way that new scientific knowledge is built upon old ideas after the addition of new data.

Activity Sequence

Exploring Stories of Origins

- Teacher Guide
- Student Text
- Student Activity
- Inter-disciplinary Activities

The Origins of the Solar System

- <u>Teacher Guide</u>
- <u>Student Text</u>

Theories in the Making

<u>Student Text</u>

To Catch a Star

<u>Teacher Guide</u>

Telling Your Story to the Space Agency

• <u>Teacher Guide</u>

Space Agency Request for Proposals Scoring Rubric for Mission Proposals

This science module, "Exploring Origins," was developed by educators at :

GENESIS



McREL

Principal Author: Kathy Phillips, Science Education Consultant

Contributing Writers: Greg Rawls, McREL Alice Krueger, McREL Jacinta Behne, McREL Randi Peterson, McREL Elaine J. C. DeBassige D'Amato, McREL

Special thanks to the following reviewers: Dr. Don Rapp, Jet Propulsion Laboratory Dr. John Sutton, McREL Deb Jordan, McREL Elaine J. C. DeBassige D'Amato, McREL Technical Editor: Jacinta Behne, McREL