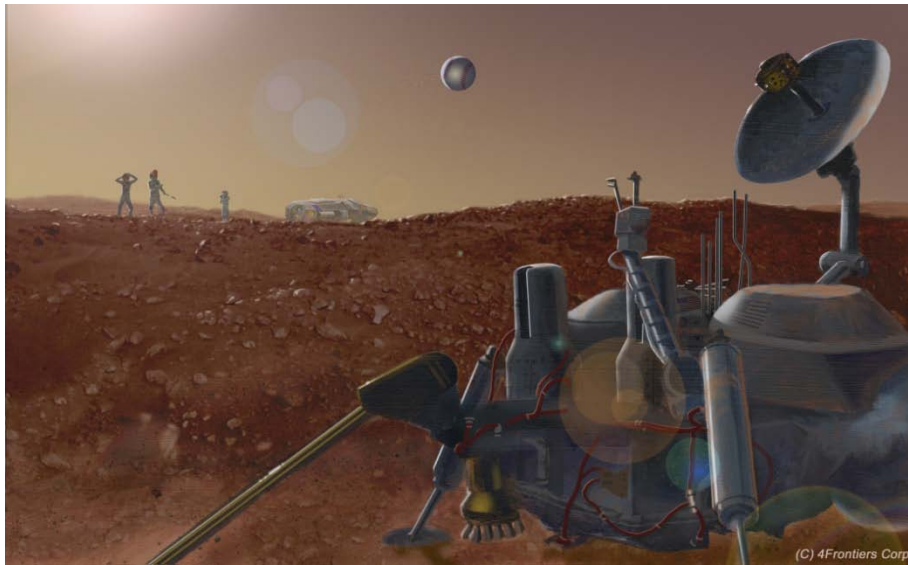




***Lure of the Red Planet:
Comparing This World & The Next***

***Space Science Education Package
For Grades 4 - 8***



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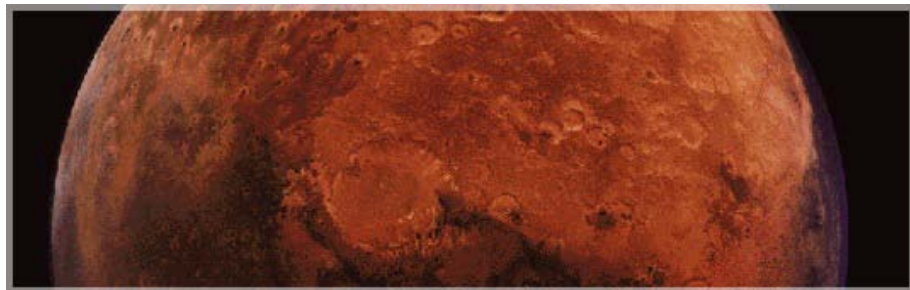


Introduction

4Frontiers Corporation, an emerging space technology, entertainment and education company, lives on the boundary between science fiction and science fact. That which was mere fiction 50 to 100 years ago is today not only accepted, but often perceived as almost mundane. With renewed global interest in space activities and emergence of the innovative new commercial space movement, the potential for radical advances in space technology are virtually assured. It is likely that today's students will see human exploration, development, and even settlement of near Earth space well within their lifetimes.

Using this near future as a basis for the 4Frontiers education package, we intend to help students envision that future, and more importantly, their role in it. Indeed, it is often the science fiction vision that has motivated generations of scientists and engineers, leading to some of our most profound innovations.

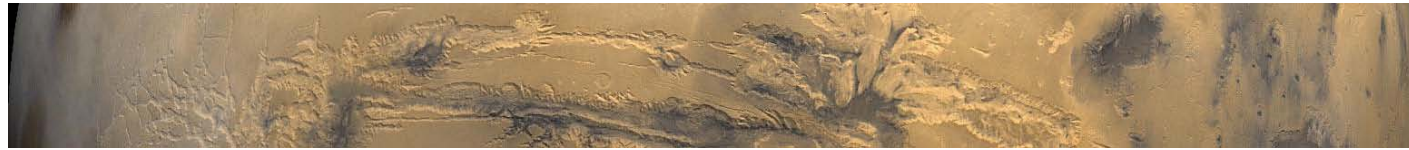
Space exploration is a tremendous motivator for students, capturing their attention and interest. In addition, as a truly interdisciplinary endeavor, it requires students to understand a variety of basic technical, social, and philosophical concepts. It is an ideal format to teach the practical application of mathematics and the nature of scientific enterprise.



Beyond the technical aspects, exploration of space is truly a human endeavor, where students can find individuals like themselves, of varying backgrounds, genders, and ethnicity, who are involved in space research and exploration. These individuals can serve as important role models, encouraging students to pursue additional coursework in science and mathematics and to dream of a career in the emerging space economy.

About This Package

This extensive two-week space science package provides students with the opportunity to learn science concepts while exploring career opportunities in high-demand technology and science fields. Using Mars exploration and settlement as the theme, the curriculum helps students better understand the nature of science and allows them to practice scientific thinking skills, addressing an area in which students often score poorly on the Science FCAT. The package supplements traditional educational materials and provides in-depth perspective on selected topics.



Package Highlights

- ❑ All lessons are correlated to the new Sunshine State Standards.
- ❑ Over 1,000 pages of teacher background information covering daily topics;
- ❑ Over 150 fun and informative, educator tested, hands-on classroom activities and experiments, each including detailed teacher instructions and step by step guidance;
- ❑ Language arts and social studies themes have been integrated throughout;
- ❑ Three custom video segments featuring leading 4Frontiers Mars researchers, highlighting their individual technical disciplines (agriculture, mining and psychology);
- ❑ Two new illustrated short stories featuring the 4Frontiers characters, linked to science concepts and augmented with sidebar science content; and,
- ❑ Numerous links to additional classroom resources.

Week 1 –The Start of the Solar System to the Present Mars Missions

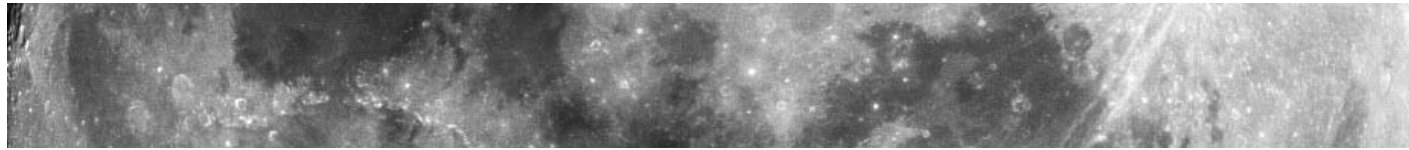
The first week focuses on Earth and space science concepts while outlining the history of scientific understanding and exploration of the solar system. Students will compare and contrast the planets, with the differences between Mars and Earth of particular interest. They will explore the effect of Mars on our society (from ancient times to modern popular culture) and learn how scientists have expanded our knowledge of Mars since the dawn of the space age.

- **Day One:** Field Guide to the Solar System
- **Day Two:** Earth vs. Mars
- **Day Three:** Early Observations & Mars in Our Culture
- **Day Four:** Missions to Mars / The Red Planet Revealed
- **Day Five:** Analyzing the Data & Future Missions

Week 2 – Why We Should Explore Space and Our Future on Mars

The second week covers future exploration, including human settlement. Students will explore fundamental questions regarding the nature of mankind’s drive to explore, learn about the technologies to be used in human exploration and those which may ultimately turn this barren world into another home for humanity.

- **Day Six:** Why Should We Explore & Settle Space? Why Mars?
- **Day Seven:** Getting There - “The Martians Are Coming”
- **Day Eight:** First Days on Mars
- **Day Nine:** Making Mars Like Home
- **Day Ten:** Looking to the Future



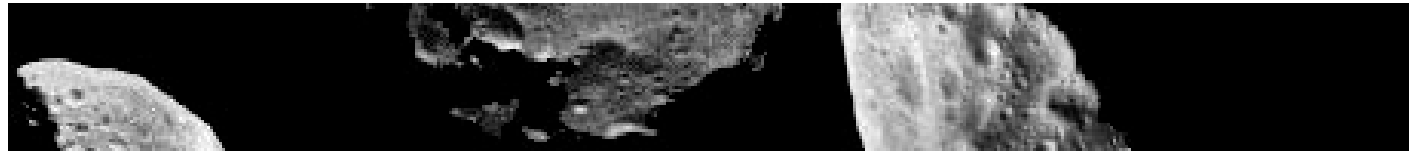
Why is This Package Needed?

- Often, curriculum lacks “real world” application in student’s lives, resulting in limited student motivation;
- There is a definite need for positive role models, especially for attracting students to science & high technology fields;
- Several Florida science supervisors assisted with package creation and identified current FCAT weakness areas. Areas of concern included Nature of Science / Scientific Thinking Skills, Earth & Space Science and Physical & Chemical Science;
- Additional materials are needed to supplement integrated and traditional science curriculum (text book based) instruction;
- Additional hands-on activities are needed, particularly in order to reinforce science concepts; and,
- Schools have placed a focus on much earlier career guidance, and there is a need for new materials highlighting science and technology careers.

4Frontiers has purposely crafted this education package to address these concerns.

Who is 4Frontiers and Why Are We Suited to Address These Issues?

- 4Frontiers is a new commercial space company, headquartered in Tampa, Florida and focused on space technology development, space-based entertainment and space science education;
- We have unique understanding of certain space systems and technologies, as well as a novel philosophy regarding space exploration, development and settlement;
- Our team is comprised of very diverse and well respected experts in a wide range of technical, scientific and social science fields – all sharing a common passion for Mars exploration and future settlement. 4Frontiers has combined the talents of this team with the expertise of curriculum writers and other education specialists to create this package. Further, we have obtained and applied input from several Florida science supervisors in its creation; and,
- Educating the public about the space economy and its profound impact on our lives is central to 4Frontiers’ objectives. The company’s technical prowess is balanced by its ability to translate technical concepts into formats which are engaging, entertaining, and informative.



How is This Education Package Different / Unique?

- This is the first comprehensive grade-school education package to address long term human presence in space;
- 4Frontiers has employed cutting edge space systems and technical knowledge, which includes our unique understanding of long term Mars habitation;
- The curriculum provides a striking perspective – that of technical professionals working hard to make Mars exploration and settlement happen. These experts serve as excellent role models;
- Resources and information from a variety of sources has been organized and presented in a manner most useful to the teachers who will use the package. This collection and organization level is rarely provided by other space science curriculum supplements;
- Over 1,000 pages of relevant, detailed background information has been included; and,
- Over 150 great science activities are included.

What is the package?

- A license to make use of the curriculum materials by one teacher. (See 4FrontiersCorp.com for pricing information)
- One DVD is provided per license;
- Each DVD contains all of the materials included in the package, including documents (in PDF format) and videos (in avi video format);
- Phone support of content for teachers implementing the package in their classrooms (for one year from sale); and,
- Discounts for bulk orders.

When is it available?

Now!

For More Information

Please visit our website, or contact us:

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