

Red Planet:

Read, Write,
Explore!

Lesson 5: Mars in the Future!

Description of Lesson: In this lesson, students imagine Mars to be a future vacation destination, and will need to encourage people to come and visit. Students will create a scripted travel video or commercial, or construct a brochure or website to convince people to visit a fictitious base on Mars. Students will tie in much of what they've learned about Mars to construct their final project.

Background (see also "Background" for Lessons 1, 2, and 4):

What will Mars be like in the future? Some suggest we will have a permanent base on Mars to conduct research and explore the planet. A permanent base needs people to support it. Some even believe that Mars will be a tourist destination some day! Students will make compelling statements about Mars and what people would do on a visit to convince potential visitors it's worthwhile to go.

Motivation:

You are living in the year 2060, and you work for the Mars Adventure Travel Corporation in their advertising office. Your main job is to convince people from Earth to visit Mars. There are new bases on Mars, with habitats that maintain temperature, provide air to breathe, protect from radiation, and have running water. Although it's no Hilton, it's a fun place to go for a visit!

Your advertising office has been given the task of creating a new advertisement. It could be a new brochure, a video or commercial, or a new website about visiting Mars.

Benchmarks for Science Literacy, Project 2061 (Grades 3-5)

The Nature of Science

The Scientific Enterprise: Science is an adventure that people everywhere can take part in, as they have for many centuries. 1C/E1

The Nature of Technology

Technology and Science: Technology extends the ability of people to change the world: to cut, shape, or put together materials; to move things from one place to another; and to reach farther with their hands, voices, senses, and minds. The changes may be for survival needs such as food, shelter, and defense; for communication and transportation; or to gain knowledge and express ideas. 3A/E4

The Living Environment

Interdependence of Life: Changes in an organism's habitat are sometimes beneficial to it and sometimes harmful. 5D/E4

Common Core for English Language Arts

Reading: Information Text

- *RI.3.7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).*
- *RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.*
- *RI.5.9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.*

Writing

- *W.3.2., 4.2, 5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.*
- *W.3.3., 4.3, 5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.*
- *W.3.7., 4.7, 5.7 Conduct short research projects that build knowledge about a topic.*
- *W.4.9., 5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.*

Speaking and Listening

- *SL.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.*
- *SL.3.4., 4.4, 5.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.*
- *SL.4.5., 5.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.*

Lesson Time: Two to three 45-minute periods

Choose one or more of the following books as a classroom resource:

- Asimov, Isaac. 2002. *Mars*. New York: Prometheus Books. (Grades 4 and up)
- Bennett, Jeffrey. 2006. *Max Goes to Mars*. Boulder, Colo.: Big Kid Science. (Grades 2 and up, and including all side material)
- Getz, David. 1997. *Life on Mars*. New York: Henry Holt and Company, LLC. (Grades 3 and up)

- Kobasa, Paul ed. 2007. *Solar System and Space Exploration Library: Mars*. Chicago. (Grades 3 and up)
- Murray, Stuart. 2004. *Eyewitness Mars*. London: DK Publishing, Inc. (Grades 3 and up) pp 62-63
- Ride, Sally and Tam O’Shaughnessy. 2006. *The Mystery of Mars*. San Diego: Sally Ride Science. (Grades 2 and up)
- Schorer, Lonnie. 2010. *Kids to Space Club: Are We There Yet?* Ontario: Apogee Books. (Grades 3 and up) pp 46, 76, 100, 110, 114, 118, 122, 130, 144, 152
- Scott, Elaine. 2008. *Mars and the Search for Life*. New York: Clarion Books. (Grades 5-9)

Materials:

- One or more of the classroom resource books
- Art supplies including paper, colored pencils, pens, and markers

Procedure:

- Have students work in groups of no more than five students per group.
- Pass back the “Needs V. Wants” Graphic Organizer from Lesson 4.
- Explain to the students that they will work in their groups to create a travel brochure, commercial or video script, or website design (on paper).
- When completed, students will present their brochure, website design, or read/act out their scripts to the rest of the class.
- Students should include:
 - A description of Mars
 - A description of traveling to Mars, including time and facilities
 - A description of the base facilities
 - A description of activities on Mars, which may include science activities, travel to destinations, recreational sports in lower gravity, etc.
 - A description of safety features provided for a stay on Mars

Note: Completed projects should ideally demonstrate students’ working knowledge of Mars based upon their research during this program.

Extension activities: Record commercials for students to view and post actual “Visit Mars” websites online as designed by students. Consider having students present them to the school or have a family night for viewing or exploring student work.



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Mars in the Future!

Name(s):

You are living in the year 2060, and you work for the Mars Adventure Travel Corporation in their advertising office. Your main job is to convince people to visit Mars. There are new bases on Mars with habitats that maintain temperature, provide air to breathe, protect from radiation, and have running water. Your group's task is to create an advertisement convincing people to visit the Red Planet. Talk with your supervisor (the teacher) about how you want to present your advertisement before you begin. Use the books provided to help you, and jot down ideas on the sheets, below. Use additional paper if you run out of room. Your advertisement should include:

A description of Mars:

A description of traveling to Mars (time, description of ship/transportation):

A description of base facilities (your shelter on the Red Planet):

A description of activities on Mars (may include science activities, travel to destinations on Mars, recreational sports in lower gravity, etc.):

A description of safety features provided for a stay on Mars:

Other ideas (use your knowledge about Mars, but also your imagination about how and where Earthlings would live and what they might do while visiting Mars):

