

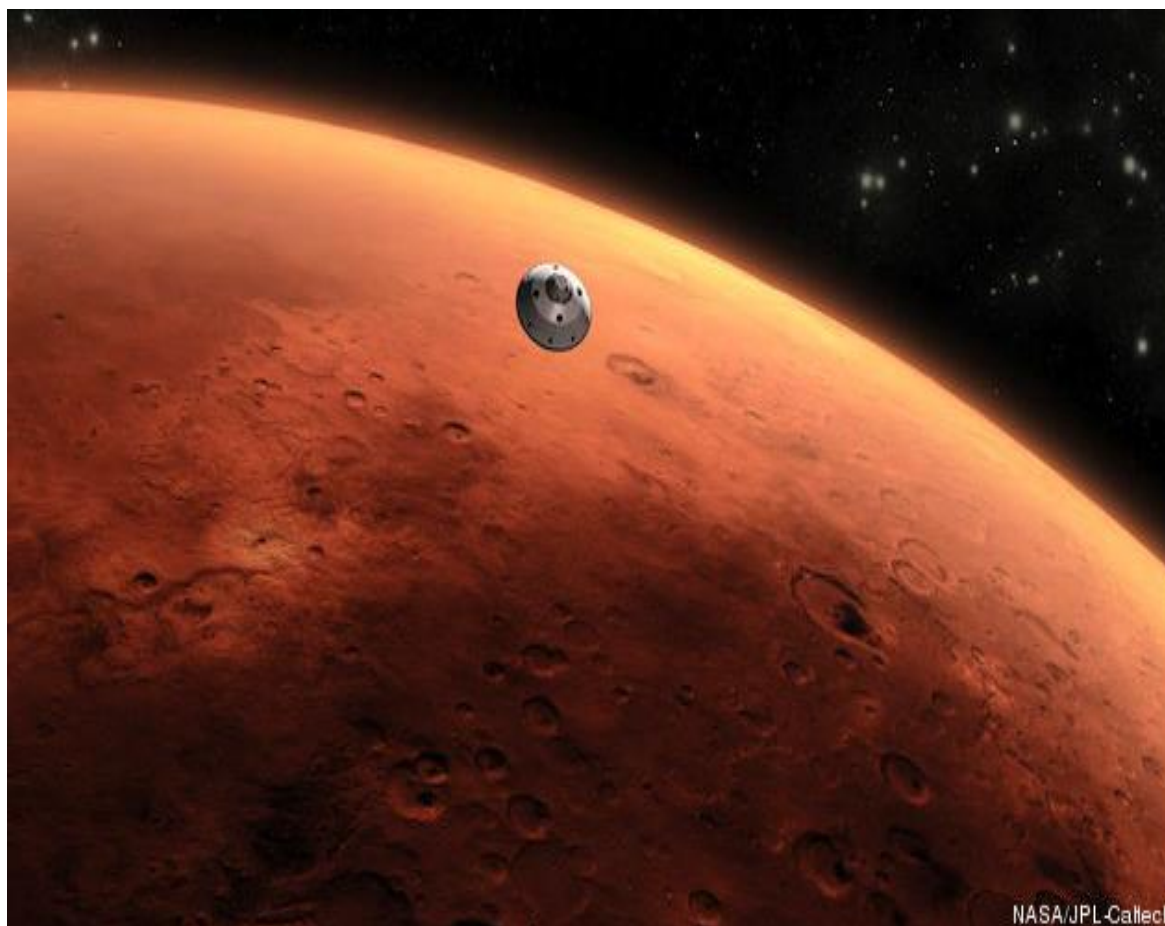


Mars Rover Celebration

Curriculum Module

Week 2: Investigating Mars

Lesson 4: Investigate Mars



Educational Product	
Educators & Students	Grades 3-5

www.marsrover.org

Week 2: Investigating Mars

LESSON 4: INVESTIGATE MARS

GRADE LEVEL: 3-5

LENGTH: 2 DAYS

VOCABULARY: main idea
paraphrase
summarize
topic

MATERIALS:

- Lost Rover PowerPoint slides
- Student Science Notebooks
- Assortment of available Mars resources such as books, articles, and internet sources (See Supplemental Resources for possible suggestions)
- 8.5" x 11" (or larger) white paper- one sheet per student
- OR Lost Rover template - one per student
- Bulletin Board (or other similar location) for displaying completed Lost Rover posters

ESSENTIAL QUESTION:

How do I know when I've found important information in my reading?

LESSON OBJECTIVE(S):

Students will be able to:

- Identify important details in informational texts
- Learn and or review summarizing skills
- Work collaboratively to locate important information about Mars such as terrain, climate, and atmosphere
- Understand the rationale and importance of note-taking
- Develop effective note-taking strategies
- Apply note-taking skills to record key information in students' Science Notebooks

ENGAGEMENT

1. At the beginning of this lesson, and using the attached documents, present the Essential Question and Key Vocabulary for students to consider during the lesson.
2. Next, show the PowerPoint slide to students. Explain that a Mars rover has been lost and students will help locate it by creating posters to be placed in the school, but also on Mars so that everyone can help find the missing rover.
3. Discuss with students that as they read, there are important details that share critical information about a subject, but there are also colorful details that make the story or paragraph more interesting.

4. Tell students that during this mini-lesson, they are going to learn how to tell the difference between those important details and the colorful ones.
5. Read the list of facts together. Once the end of the list is reached, mention that there is an awful lot of information in the list.
6. Go back to the first item (Goes by the name “Spirit”) and, thinking aloud, walk students through the process of deciding whether this fact is important to locating the rover or not. Go through the remainder of the list one by one asking students to help decide which ones are important and which are not. Place a checkmark next to each important detail. Be sure to have students provide explanations as to whether each item on the list is an important detail or not.
7. Once all the items have been examined, have students create a Lost Rover poster (draft only) in the Exploration section of their Science Notebooks.
8. After students have completed a basic draft of their posters, they may use the white paper for their final copy. For younger students, the teacher may want to use the provided template in the Appendix.
9. When finished, students are encouraged to hang the Lost Rover posters on display.

EXPLORATION

1. Now that students have learned how to identify important details, they will review note-taking skills to assist them in conducting their research.
2. Then, students will work in their assigned groups to research information about Mars.
3. As they research, students will use what they have learned during the mini-lesson to record important information and details in their Science Notebooks.
4. Circulate as students work assisting when necessary.

EXPLANATION

1. Once students have completed their research of Mars and identified important details from the available resources, students will come back together and discuss the results with the teacher.
2. As students are sharing their important details, the entire class should discuss whether the details that were found were important. As important details are shared and agreed upon, the teacher should demonstrate note-taking skills and record the information on chart paper.

ELABORATION

1. Students may work to construct an argument collecting evidence that proves that in the specific habitat of Mars, some organisms with specific characteristics may be able to survive and some may not be able to survive at all.
2. If time is available, challenge teams to write a poem with the important details that they found, draw a diagram illustrating their important details, or create a brochure using the important information they found.

EVALUATION

1. During this lesson, the teacher is encouraged to use formative assessments to determine and deepen student understanding. Teachers may wish to use one or both of the included Exit Tickets after the conclusion of the first day, grade students’ science notebooks to establish student understanding or assess student poems, diagrams, or brochures. Students will also be informally assessed when discussing the important details they discovered while researching.
2. Teachers are encouraged to create their own grade-level and ability-level assessments so as to best meet the needs of their students.

SUPPLEMENTAL RESOURCES

Resources for Students

Mars Exploration Program Overview

<http://mars.jpl.nasa.gov/programmissions/overview/>

Facts and Information about the Planet Mars

<http://www.space.com/47-mars-the-red-planet-fourth-planet-from-the-sun.html>

Mars. The Red Planet

<http://science.nationalgeographic.com/science/space/solar-system/mars-article/>

Mars for Kids

<http://www.kidsastronomy.com/mars.htm>

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