

Instructional Features

TEAM is designed for use by ESL teachers and by general education teachers as a support for ELs in their academic classrooms. The student books are centered around common themes and topics for each grade level and reflect instructional design that asks students to be responsible for their own learning. Each unit has an academic standards focus, a reading strategy, a language focus, and a writing focus, as shown in the chart below:

Unit/Lesson/Theme	Standards Focus	Reading Strategy	Language Focus	Writing Focus
UNIT 1: Acts of Nature				
LESSON 1: Burning Mountain	Science Social Studies	Main Idea and Details	Suffixes	News Story
LESSON 2: Hurricane Warning	Science Social Studies	Cause and Effect	Multiple-Meaning Words	Persuasive Email
LESSON 3: The Dark Sun	Language Arts Science	Elements of a Play	Adverbs	Character Analysis
UNIT 2: We the People				
LESSON 4: The Road to Citizenship	Language Arts Social Studies	Main Idea	Root Words	Personal Narrative
LESSON 5: A Song for the Nation	Social Studies	Sequence	Irregular Past-Tense Verbs	Summary
LESSON 6: Casting Your Vote	Language Arts Social Studies	Point of View	Subject and Object Pronouns	Speech
UNIT 3: Our Global Community				
LESSON 7: Danger in the Water	Science Social Studies	Cause and Effect	Linking Verbs	Compare and Contrast
LESSON 8: Reduce, Reuse, and Recycle	Mathematics Science Social Studies	Compare and Contrast	Homophones	Editorial
LESSON 9: Doing My Part	Language Arts Social Studies	Inferences and Conclusions	Direct Quotations	Email
UNIT 4: Exploring New Lands				
LESSON 10: Setting Sail Across America	Social Studies	Facts and Opinions	Synonyms	Letter
LESSON 11: Mission to Mars	Mathematics Science	Predictions	Antonyms	Sequence
LESSON 12: Imaginary Worlds	Language Arts	Analyzing Language	Action and Helping Verbs	Writing a Story

TITLE Mission to Mars

GENRE Informational Text

LESSON OBJECTIVES

- Read, discuss, and write about past, present, and future missions to Mars
- Make predictions
- Listen to a conversation about unmanned missions to Mars
- Participate in a discussion
- Recognize, use, and write antonyms
- Write about the history and future of Mars exploration

Content Standards Connection

- The Language of Mathematics
- The Language of Science

ELA Standards Connection

Reading

- Ask and answer questions to demonstrate understanding of a text
- Determine meanings of words and phrases
- Use information from the passage to make predictions
- Use information gained from photographs and charts to demonstrate understanding of a text
- Describe logical connections between particular sentences and paragraphs in a text
- Identify the main idea and details that support the main idea
- Use prior knowledge to draw conclusions about a text
- Know and apply grade-level phonics and word analysis skills to decode words
- Recognize sequence and identify the correct sequence of events

Speaking and Listening

- Ask and answer questions to demonstrate understanding of a text
- Follow instructions
- Engage in collaborative discussions
- Read prose orally with accuracy and fluency to support comprehension
- Use sequence words to indicate the correct order of events

Writing

- Describe sequence of events
- Use descriptive language
- Write about Mars exploration
- Write informative/explanatory texts to examine a topic and convey ideas and information clearly

Grammar and English Conventions

- Use knowledge of language and its conventions when writing
- Demonstrate an understanding of antonyms
- Read sentences that use antonyms

ACADEMIC LANGUAGE OF LESSON

Tier 1	analyzes, exploration, fascinated, international, original
Tier 2	ambitious, artificial, barren, interior, proposed, simulated, survey
Tier 3	antonyms, geology, gravity, habitat, oxygen, rotation, rover, solar, terrain



LISTENING

Listen and Discuss

Student Book PAGE 157

TOTAL TIME: 45 Minutes

My Learning Goals: 5 Minutes

Working with Page 157: 15 Minutes

Working with Page 158: 20 Minutes

Check My Goals: 5 Minutes

OBJECTIVE

- Use language of sequence to discuss exploration of Mars
- Use language to ask questions and contribute to a conversation

ACADEMIC LANGUAGE

Tier 1: analyzes, fascinated **Tier 2:** interior **Tier 3:** geology, rover, terrain

MY LEARNING GOALS

Direct students' attention to My Learning Goals. Chorally read My Learning Goals. Explain to students that at the end of the lesson, they will determine if they have met these goals. If they have, they will put a check next to each goal.

WORK WITH THE PAGE

Explain to students that they will listen to a conversation two times. The first time they hear the conversation, they should just listen carefully. As they listen a second time, they should take notes on the sequence chart about what they hear. Then they will participate in a conversation about what they have heard as well as what they have learned from the reading passage.

Say: Listen to a conversation between two friends. You will listen to the conversation two times. Listen carefully the first time. The second time you listen, take notes on the sequence chart about what you hear.


Play the audio CD two times. Pause after the first play to discuss the conversation and any questions the students may have.

Full audio script on the next page.

If students cannot complete the activity, provide a script of the audio so they can follow along. Then replay the audio.

Have volunteers provide answers from their sequence charts.

Answers will vary.



LISTENING

Listen and Discuss

MY LEARNING GOALS

I can

- listen to and understand a conversation about exploring Mars.
- use language to describe sequence.

Listen to a conversation between friends about exploring Mars. While you listen the second time, take notes on the sequence chart below.

Answers will vary.

Spacecraft visited Mars in 1960s and 1970s. Found no sign of life.

↓

Mars rovers *Spirit* and *Opportunity* landed on Mars in 2004. Took pictures of surface. Looked for evidence of water.

↓

Spirit stopped communicating in 2010.

↓

Rover *Curiosity* landed on Mars in 2012. Collected rock, soil, and air samples.

↓

Send lander to Mars in 2018 to study interior.

↓

Send people to Mars by 2030s.

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Unit 4 ★ Lesson 11 **157**



AUDIO SCRIPT

- Rico:** Why are people so fascinated with Mars? Over a hundred years ago, people were reading science fiction stories about Martians. Today, people are still curious about the “Red Planet.”
- Mychaela:** At one time, people actually thought there were Martians. After all, Mars and Earth are practically in the same neighborhood in space. Scientists wondered whether parts of Mars could be warm enough to support life. They thought Mars might have water.
- Rico:** The first spacecraft visited Mars in the 1960s and 1970s, but they didn’t find any life. No water. No Martians.
- Mychaela:** Space programs have continued to explore Mars using computers and robots. In 2004, Mars rovers *Spirit* and *Opportunity* landed on Mars. The rovers moved all over the planet, sending back full-color pictures of the terrain. Scientists used the images to study the geology of Mars. They can look at rocks and soil, and they can begin to understand Mars’s past.
- Rico:** Were they looking for something specific?
- Mychaela:** They were looking for evidence of water. They found that the surface of Mars shows marks that water may have existed at one time.
- Rico:** *Spirit* lost communication with Earth in 2010, but *Opportunity* is still operating.
- Mychaela:** In 2012, a larger rover named *Curiosity* landed on Mars. *Curiosity* is searching for signs of environmental conditions that could have supported life. It collects rock, soil, and air samples, and analyzes them.
- Rico:** Scientists have plans to continue exploring Mars. By 2018, they hope to send a lander that will dig below the surface to study the planet’s interior. They also plan to send another rover that will collect rock, soil, and core samples, and put them aside to be brought back to Earth on a future mission!
- Mychaela:** NASA’s goal is to send people to Mars in the 2030s! The rovers provide a lot of information that helps to prepare people to travel to Mars. Researchers study ways that humans will be able to survive there.
- Rico:** Some researchers are studying the best material to use for the astronauts’ home on Mars. One idea they have is to make it out of ice. I can’t wait to find out what they learn!



WORK WITH THE PAGE

Tell students they will now have a conversation about what they have heard and read. Have students ask and answer questions with a partner, or select volunteers to model the question and answer in front of the class.

You can model the conversation by using sentence starters to ask and answer questions about how scientists are exploring Mars and what they plan for the future.

Ask: How are scientists exploring Mars?

Sentence Frames

Scientists have sent _____. [rovers; spacecraft; landers]

Mars rovers take _____. [pictures; samples]

Scientists can see _____ [the surface of Mars; what Mars looks like] because of _____. [pictures that the rovers take; images]

You can choose to extend the conversation by asking more questions about the exploration of Mars.

Ask: How will Mars exploration change in the future?

Sentence Frames

In the future, scientists will _____.

Someday, scientists hope _____.

At one time, people thought _____ about Mars, but now people think _____.

CHECK MY GOALS

Ask students to turn back to My Learning Goals at the beginning of the section. Have students assess whether they have met these goals. Students should be able to check all goals. If they cannot, spend one-on-one time to provide additional support.

Listen and Discuss

SPEAKING

How are scientists exploring Mars?

A Mars rover

The surface of Mars

A Mars lander

...

158 Unit 4 ★ Lesson 11

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LANGUAGE DIFFERENTIATION

Beginning	Encourage students to complete sentences about Mars exploration using sentence starters.
Developing	Provide sentence frames and encourage students to model a conversation about how scientists are exploring Mars.
Expanding/ Bridging	Challenge students to extend the conversation by asking additional questions and responding without using sentence frames.