
Robot Explorers on Mars

Start-to-Finish® Core Content



Article 1: A Soft Landing

Comprehension Questions

1. How did the NASA team plan to slow down the rovers as they fell toward the surface of Mars?
 - a. The NASA team planned to use a robot to slow the rovers down.
 - b. *The NASA team planned to use parachutes to slow the rovers down.*
 - c. The NASA team planned to fire a rocket to slow the rovers down.
 - d. The NASA team planned to send a scientist to Mars to slow the rovers down.
2. What happened during testing that shocked the team?
 - a. A skydiver's parachute ripped to shreds.
 - b. The airbags did not pass the test in the wind tunnel.
 - c. A NASA scientist was killed.
 - d. *The airbags split open as they bounced onto the ground.*

Vocabulary Questions

1. NASA was started by the United States government to study and explore _____.
 - a. *space*
 - b. machines
 - c. rovers
 - d. airplanes
2. The robots were called _____ because they were built to move across the surface of Mars.
 - a. monkeys
 - b. *rovers*
 - c. rockets
 - d. dogs

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Article 2: Working in Mars Time

Comprehension Questions

1. How long is a day on Mars?
 - a. The same as a day on Earth.
 - b. About 40 minutes.
 - c. Each day is longer than the day before.
 - d. 24 hours and 39.5 minutes.

2. Why did one rover wake up when the other rover went to sleep?
 - a. Because the rover teams took turns sleeping.
 - b. Because the scientists wanted to save on power.
 - c. Because the rovers were working on opposite sides of the planet.
 - d. Because the scientists could only test one rover at a time.

Vocabulary Questions

1. When a planet spins all the way around once, we say it completes one _____.
 - a. Solar System
 - b. opportunity
 - c. rotation
 - d. minute

2. _____ is made up of our Sun, the planets and their moons, and other objects.
 - a. NASA
 - b. The Solar System
 - c. The rover team
 - d. Daytime

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Article 3: The Rovers at Work

Comprehension Questions

1. How did the rovers spend their days on Mars?
 - a. The rovers made one rotation each day.
 - b. The rovers went to sleep during the day and worked at night.
 - c. The rovers used airbags to bounce along the surface of Mars every morning.
 - d. *The rovers used tools to study the rocks and soil on Mars.*
2. How did NASA scientists talk to the rovers?
 - a. The scientists used solar panels to talk to the rovers.
 - b. *The scientists sent radio signals to a satellite dish.*
 - c. The scientists used a computer to “shoot and scoot.”
 - d. The scientists waited for the rovers to talk first.

Vocabulary Questions

1. NASA scientists used the rovers to look around and gather _____.
 - a. water
 - b. living things
 - c. *data*
 - d. shreds
2. Many buildings today get electric power from _____.
 - a. *solar panels*
 - b. radio signals
 - c. satellites
 - d. spacecraft



Article 4: Keeping the Rovers Going

Comprehension Questions

1. When Spirit had a bad wheel, how did the rover team figure out what to do?
 - a. *The team taught a test rover how to drive without the bad wheel.*
 - b. The team drove Spirit backwards.
 - c. The team stopped Spirit and used Opportunity.
 - d. The team sent a signal and told Spirit to drop the bad wheel.
2. Why was the team worried about sending Opportunity down a steep hill?
 - a. Because Opportunity only had 5 wheels that still worked.
 - b. Because Opportunity had very little power.
 - c. Because there might be water at the bottom of the hill.
 - d. *Because Opportunity might get stuck in a crater and never get out.*

Vocabulary Questions

1. A _____ is a hole in the ground that is shaped like a bowl.
 - a. rotation
 - b. cliff
 - c. shred
 - d. *crater*
2. The rover engineers took a big _____ when they decided to send Opportunity down a steep hill.
 - a. photo
 - b. rotation
 - c. *risk*
 - d. scientist