

Name:

Nonfiction: Context Clues – Q1:7

Date:

*As you answer this week's questions, highlight your evidence in the text.*

## Do You Want to Be a Martian?

How would you like to go to Mars? Mars is the closest planet to Earth in our solar system, but it's still an average of 229 million miles away. That distance is equal to traveling to the Moon and back 479 times. It takes about 3 days to get the moon. The trip to Mars would take 6 – 9 months. Once you've landed safely on Mars, what would it be like to live there?

To survive on Mars you'd need food and water. Mars is an **arid** desert with very little water. It doesn't rain on Mars, there are no clouds. The surface of Mars is covered in a fine, red dust. Scientists are studying ways to **extract** water from Martian soil. Food would be grown in greenhouses. Scientists found four Earth crops that could be raised on Mars. Peas, radishes, tomatoes and rye all grew in a soil similar to that on Mars. They were completely safe to eat.

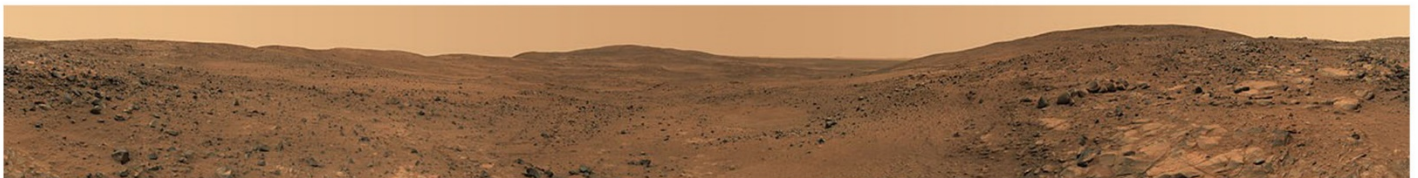
Mars can reach Earth-like temperatures near its equator. On a summer day, it can get up to 70°. That's pretty comfortable for humans. But even at the Equator, the average temperature is 52 degrees below zero. Humans can survive in cold climates. Antarctica's average temperature is 57 degrees below zero. That's 5 degrees lower than Mars, and scientists live in research stations there. You'd want to stay inside during winter nights. Temperatures can **plummet** to -100° or colder. At the poles, it gets down to 195 degrees below zero. Brrrr!

You couldn't go outside without wearing a spacesuit. Humans breathe oxygen. There is almost no oxygen on Mars. The air on Earth is 22% oxygen. Oxygen is only 0.13% of the atmosphere on Mars. Scientists are researching a method to make oxygen on Mars using bacteria and algae. Martian soil is full of nitrogen. Bacteria and algae could change the nitrogen into oxygen.

Gravity on Mars is less strong than on Earth. If you weighed 100 lbs. on Earth, you'd weigh 38 lbs. on Mars. If on Earth you could jump 3 feet high, on Mars you could jump 9 feet. Bouncing around could be fun for a while. Long term, however, low gravity could cause your muscles and bones to **deteriorate**. Your body won't be working as hard against the force of gravity. As a result, your muscles and bones would shrink and lose strength. Scientists have developed a special gym that imitates the force of gravity. It's a bit like exercising inside of a vacuum. As you lift weights or ride a stationary bike, the weight of your body would get sucked toward the floor. Plan to exercise at least 2 hours every day to keep your body fit.

You'd be able to communicate with Earth through typed messaging. It could be a slow conversation, though. Say you typed "What's up?" to your Earth BFF. It would take 8 – 24 minutes for your message to reach them. It would then be another 8 – 24 minutes before you got their reply of "Nothing much."

The United States space program is called NASA. NASA is working towards sending the first humans to Mars in the 2030s. The mission will have a crew of four astronauts. Do you want to be one of them?



Monday	Tuesday
<p>Based on the title, what is this text most likely about?</p> <hr/>	<p>Based on the text, what is the meaning of the word <b>extract</b>?</p> <hr/>
<p>Based on the text, what is the meaning of the word <b>arid</b>?</p> <hr/>	<p>How could food be grown on Mars?</p> <hr/>
<p>Why do you think the author included a picture of the surface of Mars?</p> <hr/>	<p>What is something we need to survive that Mars does not have?</p> <hr/>
<p>Based on the first paragraph, why don't we travel to Mars more often?</p> <hr/>	<p>Which continent best compares to what the temperatures would be like on Mars?</p> <hr/>
Wednesday	Thursday
<p>Based on the text, what is the meaning of the word <b>plummet</b>?</p> <hr/>	<p>Based on the text, what is the meaning of the word <b>deteriorate</b>?</p> <hr/>
<p>Why would you need a spacesuit if you lived on Mars?</p> <hr/>	<p>How does typed messaging on Mars compare to texting on Earth?</p> <hr/>
<p>According to the text, what problem might occur due to the gravity on Mars.</p> <hr/>	<p>Why might NASA want to send humans to Mars?</p> <hr/>
<p>Referring to the answer above, how could this problem be solved?</p> <hr/>	<p>Based on the text, would you want to live on Mars? Why or why not?</p> <hr/>

## More of My Thinking

Monday	Tuesday
Wednesday	Thursday

## My Progress

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
____ out of 4 correct I need more help with...	____ out of 4 correct I need more help with...	____ out of 4 correct I need more help with...	____ out of 4 correct I need more help with...

Answer Key - Nonfiction: Context Clues - Q1:7

Monday	Tuesday
<p>Based on the title, what is this text most likely about?</p> <p>Accept all reasonable answers.</p>	<p>Based on the text, what is the meaning of the word <b>extract</b>?</p> <p>remove; get out</p>
<p>Based on the text, what is the meaning of the word <b>arid</b>?</p> <p>dry</p>	<p>How could food be grown on Mars?</p> <p>In greenhouses</p>
<p>Why do you think the author included a picture of the surface of Mars?</p> <p>It allows the reader to know what the surface of Mars looks like.</p>	<p>What is something we need to survive that Mars does not have?</p> <p>food and water</p>
<p>Based on the first paragraph, why don't we travel to Mars more often?</p> <p>It takes a long time to get there.</p>	<p>Which continent best compares to what the temperatures would be like on Mars?</p> <p>Antarctica</p>
Wednesday	Thursday
<p>Based on the text, what is the meaning of the word <b>plummet</b>?</p> <p>drop</p>	<p>Based on the text, what is the meaning of the word <b>deteriorate</b>?</p> <p>weaken</p>
<p>Why would you need a spacesuit if you lived on Mars?</p> <p>There is almost no oxygen.</p>	<p>How does typed messaging on Mars compare to texting on Earth?</p> <p>On Earth, texting is very fast. On Mars, typed messages to Earth would be very slow.</p>
<p>According to the text, what problem might occur due to the gravity on Mars.</p> <p>Your bones and muscles would weaken.</p>	<p>Why might NASA want to send humans to Mars?</p> <p>Accept all reasonable answers.</p>
<p>Referring to the answer above, how could this problem be solved?</p> <p>You would need to exercise in a special gym for at least 2 hours every day.</p>	<p>Based on the text, would you want to live on Mars? Why or why not?</p> <p>Accept all reasonable answers.</p>