

Select Readings, Second Edition

Intermediate, Chapter 5 Test

Read the passage and answer the questions that follow.

Life on Mars

Called the ‘Red Planet,’ Mars is roughly half the size of Earth, and one of our closest neighboring planets. Though Mars is the most Earth-like of any other planet, the two are still worlds apart.

Living on Mars has been the stuff of science fiction for decades. However, can humans really live on Mars? Will it ever be possible or safe? NASA (the National Aeronautics and Space Administration) hopes to find out. NASA researchers on Earth are conducting several experiments together with the International Space Station (ISS) to study the health and safety issues that may tell us if life on Mars is possible.

Food and oxygen would be the main necessities for travelers living extended periods on Mars. The need to grow plants, which provide both food and oxygen, would be key. But the decreased gravity¹ and low atmospheric² pressure environment of the planet will stress the plants and make them hard to grow.

However, space station crews are growing plants in controlled environments in two of the station’s greenhouses. They take care of the plants, photograph them, and collect samples to be sent back to Earth. Researchers then use the data to develop new techniques that will make it possible to grow plants successfully in space.

Another concern for space travelers is the health hazards posed by the effect of space radiation on humans. A spacecraft traveling to Mars would be exposed to³ large amounts of radiation. Since human exposure to such intense radiation would mean certain death, the spacecraft used for such travel would have to protect the humans on the inside of the craft from exposure.

Researchers are using special machines inside the crew areas of the International Space Station to carefully watch radiation levels. NASA scientists, who have maintained radiation data since the beginning of human space flight, continue to learn about the dangers it poses. Researchers use the station to test materials that could be used in making a spacecraft that could successfully travel to Mars.

Will it ever be safe for humans to live on Mars? It is still too early to say. But thanks to the dedicated researchers of NASA and the results of ISS experiments, we are getting closer to knowing every day.

1. The reading passage is primarily about _____.
A. NASA’s efforts to see if humans could live on Mars
B. researching whether plants can grow on Mars
C. NASA’s plans for sending a spacecraft to Mars
D. experiments happening in the International Space Station

¹ **gravity** the force that pulls objects to Earth

² **atmospheric** air

³ **be exposed to** come into contact with

2. The two main necessities for human life on Mars would be _____.
 - A. plants and gravity
 - B. atmospheric pressure and food
 - C. oxygen and plants
 - D. food and oxygen
3. According to the reading, the environment on Mars would _____.
 - A. add too much stress to scientific experiments
 - B. increase gravity
 - C. make plants hard to grow
 - D. require extended periods of time
4. In paragraph 3, “key” is closest in meaning to _____.
 - A. very important
 - B. obvious
 - C. successful
 - D. remarkable
5. Which of the following is not true about the plant experiments on the ISS?
 - A. Scientists photograph the plants.
 - B. Scientists send samples back to Earth.
 - C. The plants are exposed to radiation.
 - D. The plants are being grown in greenhouses.
6. According to the reading, if humans traveled to Mars, the radiation would _____.
 - A. only be present on the surface of Mars
 - B. protect them inside the spacecraft
 - C. certainly kill them
 - D. have no effect on their health
7. Scientists have been recording data about radiation for decades, so _____.
 - A. they no longer feel the need to collect information about it
 - B. they use special machines to protect them
 - C. they know that it is no longer dangerous for space travel
 - D. they can better plan how to create a safe environment for human space travel
8. Which of the following is not true about life on Mars?
 - A. It's still too early to say if it will be possible.
 - B. NASA scientists continue to study if it will be possible.
 - C. Researchers feel it is too early to do experiments on the ISS.
 - D. ISS researchers continue to do experiments to see if it will be possible.
9. Which of the following is true, according to the article?
 - A. Researchers hope to grow plants successfully in space.
 - B. Food and oxygen on Mars is all humans need to survive there.
 - C. NASA has developed a spacecraft that will allow human travel to Mars.
 - D. Scientists have created an environment like Mars' on the ISS.
10. What is the author's main purpose in writing this article?
 - A. To show support for NASA's research on Mars
 - B. To give information about NASA's effort to study possible life on Mars
 - C. To persuade government agencies to do more research on Mars
 - D. To give information about the difficulty of growing plants on Mars