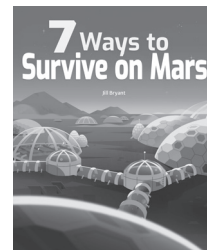


# 7 Ways to Survive on Mars

PM Post–Level 30

**Text Type** Explanation

**Running Words** 2174



## Preparing for Reading

### Prior Knowledge

- Ask students, *What are the names of the planets in our solar system? Other than Earth, which is the planet most likely to sustain life? What do we know about Mars? How have we gathered this information?*
- Discuss space missions and how robotic devices are programmed to collect and return information to scientists on Earth. Talk about why some people are determined to establish colonies on Mars and what obstacles need to be overcome to bring this to fruition.

### Orientation to the Text

- The environment on Mars is harsh and currently not capable of sustaining life. Obstacles need to be overcome, such as getting enough oxygen and water, being able to ensure an adequate food supply and building homes that are safe and comfortable. Although this would seem impossible, scientists are already putting forward possible solutions to these problems.

## Building the Balanced Reader

### Comprehension

- How have scientists gathered information about the existing conditions on Mars? (*Literal*)
- What is likely to be the main source of food for people living on Mars? (*Inferential*)
- Of the seven problems that need to be solved to sustain life on Mars, which do you think will be most difficult? Why? (*Applied Knowledge*)

### Analysis and Critique of the Text

- Why do you think some people want to establish a community on Mars?
- Would you like to live on Mars? Why?
- Where do you think the author located all the scientific information that has been included in the text?
- How does this text compare with what you already know about the possibility of living on Mars?
- What technique does the author use to engage the reader in the process of preparing to live on Mars?

- Do you think there has always been a level of support for the concept that life can exist on Mars? Why?
- Has this text changed your perspective on the possibility of living on Mars? How?
- Identify pronouns in the text that indicate if it is written in first, second or third person. Why do you think the author has written the text this way?

### Vocabulary

- Assist students to understand or locate the meaning of these words from the text:  
*adequate, controlled, crater, dehydrated, devices, emitted, essential, extract, generator, hostile, impractical, mimic, morale, nutritional, paired, particles, precision, radiation, steady, strive, terrain, thrive, toxins, vibrant, withstand*
- Discuss the meaning of the prefix 'de-' (off or from). List common words we use that have this prefix and establish how adding it to a word changes the word's meaning, e.g. deactivate, decode, decompose, deconstruct, deflate, deflect, derail, detract.

### Spelling

- Ask students to discuss the origin of the word *radiation* (Latin: radiation = rays of light).
- Then ask them to write a list of other words that belong to the same family, e.g. radiate, radius, radiance, radiant, radiology, radiator.

### Visual Literacy

- What information is provided in the table on page 3? Why has the author chosen to present the information in this way?
- What are the similarities and differences between the spacesuit on page 9 and a regular spacesuit worn by astronauts today?
- What type of visuals usually support an explanation text? Why are some of the images (e.g. page 25) drawings instead of photographs?

### Follow-up Activities

- Devise an indoor fitness program that you could do each day if you were living on Mars. Explain how to perform each exercise and the number of repetitions required to keep you healthy.
- Analyse the checklist on page 27 and discuss how it is similar to and different from a checklist that drivers might use for a trip on Earth.

# 7 Ways to Survive on Mars

Date \_\_\_\_\_

PM Post-Level 30

## Learning Intentions

- We are learning to understand the complexities of creating a sustainable habitat on Mars, and how associated problems can be solved.
- We are learning to identify and use appropriate second-person pronouns when directly addressing the reader.

• \_\_\_\_\_

## Success Criteria

- I can explain some of the difficulties of living on Mars and how these problems might be solved.
- I can recognise, select and use appropriate pronouns to write sentences in second person.

• \_\_\_\_\_

## Observation of Reading Behaviours

Student's name	Reading focus	Observations/notes	For follow-up