

### About the Book

Text Type: Nonfiction/Informational Page Count: 16 Word Count: 999

### Book Summary

Ever wonder how astronauts sleep in space? What about going to the bathroom? How do you eat when your food floats away? *Life in Space* answers these questions and more as readers learn about astronauts' daily lives aboard the International Space Station as well as the history behind the station itself. A variety of photos, graphs, and sidebars illuminate this book's exploration of daily activities in weightlessness. Use this book to teach about author's purpose and possessive nouns. Book and lesson plan also available at Levels V and Y.

### About the Lesson

#### Targeted Reading Strategy

- Connect to prior knowledge

#### Objectives

- Connect to prior knowledge to understand text
- Analyze the author's purpose for the text
- Identify and use possessive nouns
- Understand and use the prefixes *astro-* and *re-*

#### Materials

**Green text** indicates resources are available on the website.

- Book—*Life in Space* (copy for each student)
- Chalkboard or dry-erase board
- Extraterrestrial photographs
- **Connect to prior knowledge, author's purpose, possessive nouns worksheets**
- **Discussion cards**



Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting the book on an interactive whiteboard or completed with paper and pencil if the books are reused.)

#### Vocabulary

\*Bold vocabulary words also appear in a pre-made lesson for this title on [VocabularyA-Z.com](http://VocabularyA-Z.com).

- Content words:

Story critical: **astronauts** (n.), **gravity** (n.), **launched** (v.), **orbited** (v.), **space station** (n.), **training** (n.)

Enrichment: **cosmonaut** (n.), **missions** (n.), **nozzle** (n.)

### Before Reading

#### Build Background

- Tape extraterrestrial photographs to the board, such as planets, stars, and comets. Have students identify the images.
- Introduce and explain the **connect-to-prior-knowledge worksheet**. Have students fill out the first portion independently, by reading the statements and marking *true* or *false* in the *Before Reading* column. Discuss the sentences with the class. Point out that after they have read the book, they should be able to accurately analyze each sentence.

- Ask students to consider how we have learned about all of these objects that are not on our planet. Call on random students to share one method we have of learning about space, and record the information on the board. Write the word *astronauts* on the board and have students read it aloud. Discuss with students how astronauts contribute to our knowledge about outer space.

## Preview the Book

### Introduce the Book

- Give students their copy of the book. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is (genre, text type, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).

### Introduce the Reading Strategy: **Connect to prior knowledge**


- Remind students that engaged readers help themselves to understand what they are reading by making a connection between what they already know about a topic and what they read in the book. Discuss with students how interacting with the text by connecting to prior knowledge will help them understand and remember what they read.
- Ask students to review their connect-to-prior-knowledge worksheet with a partner. Point out that they can accurately label a sentence as *true* or *false* only if they have prior knowledge about the sentence's subject. Have students discuss with a partner their prior knowledge of outer space and astronauts.
- Have students preview the table of contents and the illustrations and photographs in the book. Remind them to think about any prior knowledge they have that is related to what they see.
- Model how to connect to prior knowledge.  
*Think-aloud: As I read through the table of contents, some of the topics look unusual, and some sound familiar. For example, I know all about sleeping and eating and taking a bath. I exercise several times a week. I know how to do all of these activities, but I have a feeling that the way astronauts do things is very different. My prior knowledge about these subjects will help me to relate to the astronauts and also enable me to better understand the differences in the way astronauts live.*
- Have students complete the connect-to-prior-knowledge worksheet by filling out the second section. Explain to students that their prior knowledge can be about astronauts, space, or any of the topics mentioned in the table of contents.
- Have students share with a partner two examples of how they connected information from the book preview with their own prior knowledge. Encourage students to refer to the prior knowledge written on their worksheet as they discuss these connections.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

### Introduce the Comprehension Skill: **Author's purpose**

- Write the following words on the board: *inform*, *entertain*, and *persuade*. Have students read the words aloud. Ask students to share with a partner what they already know about the meaning of each word.
- Discuss with students the definition of each word. To *inform* means to give a person information about a topic, to *entertain* means to amuse a person, and to *persuade* means to try to make a person think the same way you do.
- Remind students that when an author writes a book, he or she has a purpose for that book. An author's purpose may be to inform, to entertain, or to persuade. Point out that an author may have more than one purpose in a book.

- Model analyzing an author's purpose.  
*Think-aloud: When I read a book of jokes, I laugh and have fun. The author's purpose in creating that book is to entertain the reader. The writer of an ad that is trying to sell me a new type of perfume wants to convince me that the product is the best one. That author has the purpose of persuading me because the writer is trying to make me think and act in a certain way. By contrast, the author that writes a book teaching about volcanoes has the purpose of informing the reader because the author is teaching the reader facts about the topic of volcanoes.*
- Have students work in groups to discuss two books they previously read in class. Have groups analyze the author's purpose for each book. Invite groups to share the title of a book, their decision of the author's purpose, and a justification of their choice with the rest of the class.

### Introduce the Vocabulary

- As students preview the book, reinforce the vocabulary words they will encounter in the text. For example, have them refer to page 7 and say: *How big is the space station? That's right; it's as long as a football field. What is a space station? It's a spacecraft where people can live.*
  - Remind students that engaged readers can often use context clues to determine the meaning or pronunciation of an unfamiliar word. Write the word *launched* on the board, and read it aloud with students. Have students point to the word *launched* on page 6. Explain to students how to use context clues to ascertain the meaning of the word. For example, say: *The sentence tells me that the Soviet Union launched its first space station. What can we do to space stations? We could fix them, build them, or send them into space. The picture shows a space station floating above the Earth. On the basis of the sentence and the photograph, the meaning that most makes sense for this word is to send something moving into space.*
  - Explain to students that sometimes they won't find enough clues to figure out the meaning of the word, or they might decide on an incorrect meaning. They will then need to use other resources to define the word.
  - Remind students that some books have glossaries that define important vocabulary words from the text. Have students turn to the glossary on page 16. Ask students to find and point to the word *launched*. Have a volunteer read the definition aloud. Have students discuss with a partner whether the meaning in the glossary confirms the meaning they inferred from the context.
-  Have students work in groups to find the remaining words from the glossary in the book. Have students underline each word, and remind them that many vocabulary words are in boldface print. Then, have groups use context clues to determine the meanings of the words and write their definitions for the words on a separate sheet of paper.
- Have students compare their definitions with those in the glossary. Discuss with the class how the definitions compare, which words were easy to figure out, and which words most called for a glossary.


### Set the Purpose

- Have students read to find out more about an astronaut's life. Encourage students to connect the information they read to their prior knowledge about the subject.

## During Reading

### Student Reading

- **Guide the reading:** Have students read from page 4 to the end of page 7. Encourage those who finish early to go back and reread.

- Model connecting to prior knowledge.  
*Think-aloud: In this part of the book, I learned that the International Space Station is as long as a football field, and weighs almost one million pounds. Since I have prior knowledge about football fields, I was able to understand that the space station is very long! I also know how much I weigh, and this prior knowledge helped me to realize that the ISS is extremely heavy. I'm glad that it is floating in space and that nothing has to hold it up. My prior knowledge allowed me to better understand the facts I learned.*
  - Have students discuss with a partner the connections they made between the information in the book and their prior knowledge.
  - Create a three-column chart on the board, and at the top of the columns write the labels to *inform*, to *entertain*, and to *persuade*. Review the information described in the first pages of the book, and write details on the board. Read one detail from the board, and have students point to the column that best classifies that detail. (For example, the book *entertains* with details that lead the reader to imagine that he or she is waking up in space and flying across the no-gravity room. The book *informs* the reader by providing details such as the space race starting in the 1950s and 1960s and Yuri Gagarin being the first Russian cosmonaut.)
  - Write each detail in the appropriate column. Remind students that authors may have more than one purpose in writing but generally have a main purpose. Encourage students to review all the details as they read and to analyze the main purpose the author has in this book.
  - **Check for understanding:** Have students read pages 8 through 11. Encourage them to stop after every few pages and review the prior knowledge they wrote down on the connect-to-prior-knowledge worksheet. Remind them to connect what they are reading with their prior knowledge of the subject.
  - Review with students the new information they read. Discuss with students how these details support one or more of the three purposes for writing a book. Record examples in the appropriate columns of the chart.
  - Have students discuss with a partner their opinion on the author's purpose for this book. Point out that the column with the most details shows where the author is putting more emphasis, and the purpose with the most emphasis is usually the author's main one for the book.
  - Have students read the remainder of the book. Remind them to continue thinking about what they already know about astronauts and space as they read.
-  Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

## After Reading

- Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

## Reflect on the Reading Strategy

- **Think-aloud:** *Toward the end of the book, I learned that astronauts have to work out in space because the lack of gravity makes their bones and muscles weak. I know that space has no gravity, and that it is different to walk and move there, so I understand why exercise would also be difficult for astronauts. Even though it surprised me that they lost so much strength in space, it was easier for me to understand because of my prior knowledge.*
- Have students discuss with a partner all the new information they learned about astronauts and space. Call on random students to share one new fact they learned. Record the information on the board. Ask students to review the prior information they described on their connect-to-prior-knowledge worksheet. Have them share with a partner how they connected that prior knowledge to the information from the book.

- **Independent practice:** Have students complete their connect-to-prior-knowledge worksheet by reading the statements again and marking *true* or *false* in the *After Reading* column. Then, have students turn the worksheet over. On the back, have students write a sentence describing one way they connected the information in this book to their prior knowledge. Invite volunteers to share what they wrote with the rest of the class.

### Reflect on the Comprehension Skill

- **Discussion:** Discuss the remaining details from the book, and add them to the chart on the board. Review the chart and an author's purpose for writing (to inform, entertain, or persuade). Ask students to silently consider their opinion on the author's purpose for the book, and then have students call out that purpose.
- Ask students to discuss with a partner examples from the book where the author informed readers about an astronaut's life. Invite volunteers to provide details to the rest of the class.
- **Independent practice:** Introduce, explain, and have students complete the **author's purpose worksheet**. If time allows, discuss their answers.
- **Enduring understanding:** In this book, you learned about the exciting and challenging life of an astronaut. Would you like to be an astronaut one day? Why or why not?

## Build Skills

### Grammar and Mechanics: Possessive nouns

- Write the following sentence on the board: *The student's desk is too messy*. Read the sentence aloud and point to the word *desk*. Ask students to identify with a partner whose desk the sentence is referring to (*student's*).
- Explain to students that the word *student's* is a possessive noun. Review or explain that *possessive nouns* are words that show ownership, or possession. A possessive noun is formed by adding an 's to the end of a word.
- Hold up your pencil. Ask them whom the pencil belongs to (you, the teacher). On the board, write the sentence *The pencil belongs to the teacher*. Beneath that, write the phrase *the teacher's pencil*. Ask students to give a thumbs-up signal if the two phrases mean the same thing. Review with students that you add the 's to the noun that owns the object.
- Point out that objects can belong to people, animals, or things; in other words, nouns. That's why we call these words *possessive nouns*.
- Have students turn to page 8. Ask them to find and point to the possessive word on that page (*astronaut's*). Have students share with a partner how they know it is a possessive noun and what belongs to the astronaut.
- Remind students that a contraction using 's is different from a possessive noun. For example, *it's* is a contraction for *it is* and does not show ownership.



**Check for understanding:** Write a list of nouns on the board, such as *mother, friend, dog, house*, and so on. Have students work with a partner to make these words possessive nouns by adding 's and then to think of an object that the possessive noun would own. Invite volunteers to share the created phrases with the class.

- **Independent practice:** Introduce, explain, and have students complete the **possessive nouns worksheet**. If time allows, discuss their answers aloud.

### Word Work: Prefixes *astro-* and *re-*

- Write the word *astronaut* on the board and read it aloud with students. Have students discuss the meaning of the word with a partner. Cover part of the word so that only *astro-* is showing.
- Explain to students that the beginning of this word, *astro-*, comes from an old word that means *things related to stars*. When this prefix is attached to a word, the word's meaning will be related to stars or outer space.



- Remind students that a *prefix* comes at the beginning of a word and changes the word's meaning.
- Write the following sentence on the board: *Astronauts reenter the Earth's atmosphere.* Read the sentence aloud with students. Point to the word *reenter*. Have students discuss with a partner the meaning of the word. Invite a volunteer to share the definition with the rest of the class. Cover the word so that only the prefix *re-* is showing.
- Remind students that the prefix *re-* means *again*. Write the word *redo* on the board and read it aloud. Have students discuss with a partner the meaning of *redo*, reminding them to think about the meaning of the prefix. Invite a volunteer to share the definition with the rest of the class.
- ✎ Have students turn to page 15 in the book. Ask them to work with a partner to find and circle every word that uses a prefix of *astro-* or *re-* (*astronauts* five times, *regain*).
- **Check for understanding:** Write the following words on the board: *reheat*, *astronomy*, *revisit*, and *rewrite*. Invite volunteers to come to the board and circle the prefixes in each word. Discuss the meanings of the root words, and then have students work with a partner to define each word by applying the prefix to the original meaning. Invite volunteers to share their definitions, and record accurate definitions on the board.

## Build Fluency

### Independent Reading

- Allow students to read their book independently. Additionally, partners can take turns reading parts of the book to each other.

### Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends. Have them discuss the connections they made to the book with someone at home.

## Extend the Reading

### Informational Writing and Art Connection

Write a list of professions on the board. Ask students to choose from the list one career that interests them. Have students research their choice in the library, online, or using classroom resources. Guide them in taking notes on the profession, focusing on four areas: the training required, the daily routines, the challenges involved, and the rewards of the job. Have students write three paragraphs that introduce the profession, describe the job, and explain whether the student wants to pursue that career in the future. Ask students to draw a picture representing the profession to accompany their essay.

Visit [WritingA-Z.com](http://WritingA-Z.com) for a lesson and leveled materials on informational writing.

### Science Connection

Read a couple of books about the solar system to students. Discuss with students the nature of the Sun and other stars. Split students into eight groups. Have students work in groups to study facts about one planet and then share the information with the rest of the class. Write the names of the planets on the board, in their respective order from the sun, and explain to students how to memorize their order using a mnemonic technique, such as an acrostic (My Very Energetic Mother Just Served Us Nachos = Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune). Have students make collages of the solar system, cutting out circles for the planets and the Sun and arranging them in the correct order. Have students decorate their solar system with stars. On the reverse side, have students write down three facts about stars. Hang these solar system collages up in the classroom or on a bulletin board.

**Skill Review**

**Discussion cards** covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.

**Assessment****Monitor students to determine if they can:**

- consistently use the strategy of connecting to prior knowledge to comprehend the text during discussion and on a worksheet
- accurately determine the author's purpose during discussion and on a worksheet
- correctly use possessive nouns during discussion and on a worksheet
- accurately use the prefixes *astro-* and *re-* to define words during discussion

**Comprehension Checks**

- **Book Quiz**
- **Retelling Rubric**