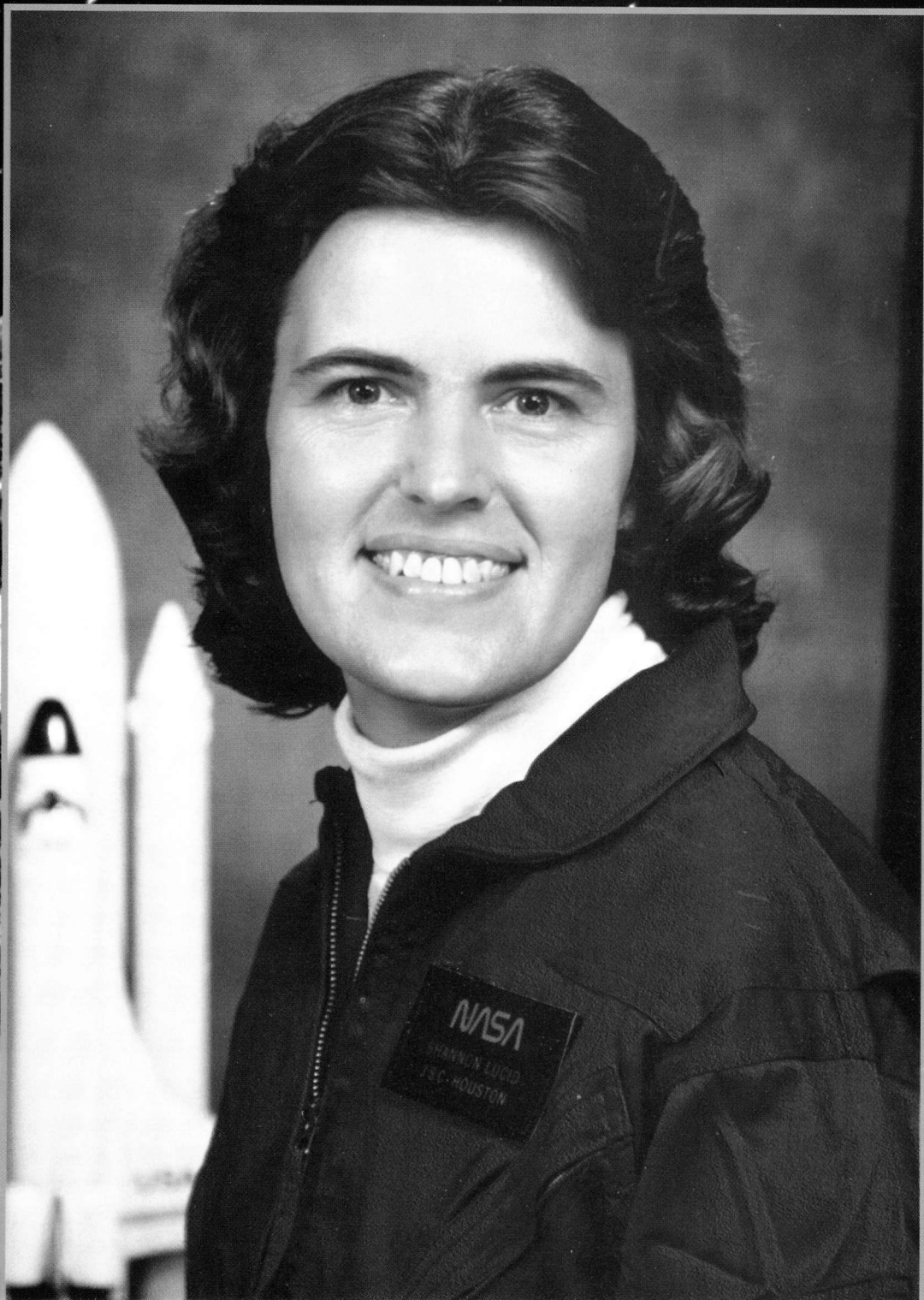


Leading the Way

by Pam Conrad



Aqua 1c
Power Builder

9

- 1 Meet Shannon Lucid. She is a mother, a scientist, and an astronaut. She also holds a world record. Her record is for the longest time an American has spent in space—more than six months.
- 2 In late March 1996, Lucid blasted off from Earth in the space shuttle *Atlantis*. She arrived at the space station *Mir* on March 23. Here, Lucid lived for the next 188 days.
- 3 Lucid ate, slept, exercised, and worked on *Mir*. In the station's high-tech kitchen, she fixed her meals. Lucid mixed foods such as dried meat, rice, and pudding with water. If she let go of her spoon, it did not drop on the floor. Instead, it floated. So did other loose objects. Lucid floated too. She felt comfortable either right side up or upside down.
- 4 Lucid said that living in space is fun. It can also cause problems. For example, everyone who goes into space loses muscle. In addition, living in space can cause bones to weaken. Exercise helps keep people's bones and muscles strong. Lucid knew this. She rode an exercise bike and ran on a treadmill. She exercised a total of almost 400 hours.
- 5 As part of her work, Lucid conducted many experiments. She found out how a candle can burn in space. She studied how space affects the way baby birds grow inside their eggs. Her experiments will help other scientists learn more about life in space.
- 6 Finally, it was time for Lucid to return home. A crew boarded *Atlantis*, traveled into space, and docked at *Mir*. The crew transferred food, supplies, and air to the space station. Crew member John Blaha was going to stay. Then, Lucid and the rest of the crew headed for home. On September 26, 1996, the *Atlantis* crew and Lucid arrived safely at Cape Canaveral.
- 7 When Lucid came back, other scientists were eager to talk with her. They wanted to do some medical tests. They wanted to use the information to help them understand the effects of living in space for long periods of time. They also hoped to use the information to make space travel easier in the future.
- 8 Welcome home, Shannon Lucid. And thank you for leading the way!



COMPREHENSION

A Choose the best ending for each sentence. Write *a*, *b*, or *c*.

- 1** Shannon Lucid lived on *Mir* in order to learn
 - a** how to ride an exercise bike in space.
 - b** more about life in space and how it affects humans.
 - c** how to burn candles in space.
- 2** Lucid mixed the foods she ate with water because
 - a** the foods were easier to share with other astronauts.
 - b** *Mir* did not have a kitchen.
 - c** water had been removed from the foods.
- 3** Lucid exercised to
 - a** keep her muscles strong.
 - b** lose weight.
 - c** keep busy.

- 4** Lucid enjoyed living in space because she
 - a** was tired of living at home.
 - b** liked riding an exercise bike.
 - c** did things no one had ever done before.
- 5** Lucid's long stay in space is important to scientists because
 - a** they can study the long-term effects of living in space.
 - b** they can plan a Space Olympics.
 - c** they can learn how to raise farm animals in space.

LEARN ABOUT WORDS

B Often you can find out the meaning of a word by seeing how it is used in a story. The other words in the story give you clues.

Find the word in the story that best fits each meaning. (A paragraph number tells you where to look.) Write the word.

- 1** person who travels in space (1)
- 2** did physical activity to strengthen the body (3)
- 3** not fixed or fastened; free (3)
- 4** situations that need to be worked out (4)
- 5** carried out (5)
- 6** tests to find out something (5)
- 7** moved items to another place (6)
- 8** full of desire (7)



LEARN ABOUT WORDS (continued)

C **too** = also

two = the number after *one*

Words that sound alike but have different spellings and meanings are called homophones. *Too* and *two* are homophones.

Look at each word in **bold type**.
Note the paragraph number. Look

at the paragraph and find the homophone. Which of the two words fits in the blank in the sentence? Write the word.

9 **eight** (3)

Shannon _____ dried meat and pudding.

10 **weigh** (8)

When you're in space, you feel like you don't _____ anything.

THINK ABOUT IT

D A dictionary is a list of words in alphabetical order. The top of each dictionary page has two words printed in large, heavy type. These words are called guide words. They are the first and last words on the page. By thinking about whether the word you are hunting for fits between the guide words, you can find the word quickly.

Read the pair of guide words. Would each word below appear on the same page as the guide words? Write *Yes* or *No*.

space/spice

- 1 shuttle
- 2 special
- 3 station
- 4 spoon
- 5 speed

E Read each sentence below. If the sentence is only about the space shuttle, write *shuttle*. If it is only about the space station, write *station*. If it is about both, write *both*.

6 Shannon Lucid set her space record there.

7 Astronauts work there.

8 It is used to travel to space and back to Earth.

9 Lucid did her experiments here.

10 Astronauts must bring food, supplies, and fresh air with them.