Read

Genre: Memoir

WORDS TO KNOW

As you read, look inside, around, and beyond these words to figure out what they mean.

- **launch**
- **brilliant**
- **atmosphere**

To Space and Back

by Sally Ride

1 Launch minus 10 seconds . . . 9 . . . 8 . . . 7 . . . The three launch engines light. The shuttle shakes and strains at the bolts holding it to the launch pad. The computers check the engines. It isn't up to us anymore—the computers will decide whether we launch.

2 3 . . . 2 . . . 1 . . . The rockets light! The shuttle leaps off the launch pad in a cloud of steam and a trail of fire. Inside, the ride is rough and loud. Our heads are rattling around inside our helmets. We can barely hear the voices from Mission Control in our headsets above the thunder of the rockets and engines. For an instant I wonder if everything is working right. But there's no time to wonder, and no time to be scared.

3 In only a few seconds we zoom past the clouds. Two minutes later the rockets burn out, and with a brilliant whitish-orange flash, they fall away from the shuttle as it streaks on toward space. Suddenly the ride becomes very, very smooth and quiet. The shuttle is still attached to the big tank, and the launch engines are pushing us out of Earth's atmosphere. The sky is black. All we can see of the trail of fire behind us is a faint, pulsating glow through the top window.

4 Launch plus six minutes. The force pushing us against the backs of our seats steadily increases. We can barely move because we're being held in place by a force of 3 g's—three times the force of gravity we feel on Earth. At first we don't mind it—we've all felt much more than that when we've done acrobatics in our jet training airplanes. But that lasted only a few seconds, and this seems to go on forever. After a couple of minutes of 3 g's, we're uncomfortable, straining to hold our books on our laps and craning our necks against the force to read the instruments. I find myself wishing we'd hurry up and get into orbit.

5 Launch plus eight and one-half minutes. The launch engines cut off. Suddenly, the force is gone, and we lurch forward in our seats. During the next few minutes the empty fuel tank drops away and falls to Earth, and we are very busy getting the shuttle ready to enter orbit. But we're not too busy to notice that our books and pencils are floating in midair. We're in space!

Sally Ride, the first American woman to go into space, shared her thoughts, feelings, and experiences in her memoir, *To Space and Back.*

Genre: Magazine Article

THIS DAY IN HISTORY

June 18,1983 | **Memorable Milestones: Space Shuttle Missions**

1 A crowd of about 250,000 gathered early that bright June morning at Cape Canaveral, Florida, many wearing "Ride, Sally Ride" T-shirts. Across the nation, many others also watched and waited. Suddenly, the engines ignited, and smoke and steam billowed across the site. Then booster rockets lifted the huge space shuttle slowly into the air. Gathering speed, the *Challenger* blasted off into orbit for its second mission.

2 At the same moment, one crew member, mission specialist Sally K. Ride, was rocketing into history. Ride was America's first woman to travel into space. Sally Ride had earned the right to be aboard the space shuttle. A physicist, she had been in astronaut training for six years. She had also worked at Mission Control, relaying messages to shuttle crews during earlier shuttle flights. Ride had even helped develop a robotic arm to use in space. This knowledge and experience had led Captain Bob Crippen to choose her as a crew member. And Ride was ready for the challenge.

3 In just over eight minutes, launch engines were lifting *Challenger* to its 184-mile high orbit. During the ascent, Ride acted as flight engineer, calling out checklists to the pilots. She also joked with Mission Control about the exciting ride.

4 Once in orbit, the five astronauts wasted little time. In the busy days ahead, the crew completed a number of experiments. This included using radar and a high-resolution camera to study the earth's atmosphere. Ride helped launch two communications satellites. She also became the first woman to operate the shuttle's robotic arm by releasing a satellite into orbit.

Think and Write

Use what you learned from reading the memoir and the magazine article to respond to the following questions.

1 Which statement **best** describes the differences between *To Space and Back* and "Memorable Milestones: Space Shuttle Missions"?

- **A** One is a news article. The other is from an eyewitness who watched the launch.
- **B** Both are written by people who were at Cape Canaveral on June 18, 1983.
- **C** One was written at the time of the launch. The other was written several years later.
- **D** One is based only on facts. The other is based on facts and personal experience.

2 Which phrase from "Memorable Milestones: Space Shuttle Missions" helps the reader understand the meaning of the word ascent in paragraph 3?

- **A** "just over eight minutes"
- **B** "lifting *Challenger*"
- **C** "acted as flight engineer"
- **D** "the exciting ride"

3 Complete the chart to compare the different accounts of the same event. Write an X in the box next to a detail that describes *To Space and Back* or "Memorable Milestones: Space Shuttle Missions." Some details may describe both accounts.

Statement	*To Space and Back*	"Memorable Milestones"
Describes the launch of a space shuttle		
Explains how the launch affects the author's body		
Tells why the mission was unlike other missions		
Presents all events as taking place in the past		
Presents events as if they are taking place now		

4

Extended Response Both *To Space and Back* and "Memorable Milestones" describe the same event. How are these accounts similar? How are they different? Use details from **both** accounts to support your response.

In your response, be sure to

- describe how the accounts are similar
- describe how the accounts are different
- use details from **both** accounts to support your response

Get Ready to Write

- ☐ Figure out what kind of evidence from each text you need to support your response.
- ☐ Find and **underline** details in each text that support your response.
- ☐ Make a chart to organize your ideas and evidence.

Write

Learning Target

Now that you've compared and contrasted different accounts about the same events, write about how you developed a deeper understanding of what happened.

Directions
Read this article. Then answer questions 1 through 5.

from

"Ferris's Grand Idea"

by Marcia Amidon Lusted, Cobblestone

1 Daniel Burnham was stumped. He wanted the World's Columbian Exposition to have a centerpiece to rival the Eiffel Tower from the Paris exposition of 1889. The graceful iron-and-steel structure had become a landmark recognized around the world. France's engineering talent now looked superior to America's. "Some distinctive feature is needed," Burnham said to a group of engineers at a weekly dinner in 1891. "Something novel, original, daring, and unique must be designed and built if American engineers are to retain their prestige and standing."

rival = to compete with

landmark = an important building or large object

2 Burnham wanted something that would "out-Eiffel Eiffel" . . . to draw people to Chicago.

3 George Washington Gale Ferris, a young engineer from Pittsburgh, Pennsylvania, was present at the banquet that night. Hearing Burnham's words, Ferris recalled an idea he had been working on. He quickly scribbled the design on his dinner napkin. It was something that had never been done before: a revolving . . . wheel, 250 feet in diameter. It would hold more than 2,000 people in 36 cars attached to the wheel's rim. Each car would be as large as a bus and hold 40 (seated) to 60 (standing) people at a time . . . .

4 The wheel was not finished in time for the fair's opening day, May 1, 1893, but by June the engineers were testing it. On the first day of testing with passengers aboard, crowds of spectators ignored the engineers' requests to stand back. Instead, they rushed the wheel and climbed into the cars for the 20-minute ride. Ten minutes were spent getting passengers off and on. This was followed by a 10-minute nonstop single revolution. Ferris's grand idea was a huge success and wildly popular. It quickly became the highlight of the fair.

spectators = people who watch something

5 It cost 50 cents to ride the wheel, the same as the price of admission to the fair itself. The huge wheel cost $400,000 to build and maintain during the exposition. That was an enormous expense in those days. But its total earnings were more than $700,000, making a tidy profit for the fair organizers, Ferris, and the investors who had helped him pay for the project.

6 After the fair closed in October, the wheel was dismantled. It was used several more times, including at the St. Louis World's Fair in 1904, but two years later it was sold for scrap metal. It took 200 pounds of dynamite to finally knock the huge wheel off its towers.

7 Ferris's wheel is gone, but its legacy lives on in almost every amusement park and carnival . . . . Next time you're awed by the views from the top, think of George Ferris and the vision he had to put you there.

1 In paragraph 3 of "Ferris's Grand Idea," what does the word "recalled" mean?

A called again

B remembered

C came up with

D invented

2 In paragraph 3 of "Ferris's Grand Idea," what does the word "revolving" mean?

A large

B new

C turning

D wonderful

3 What is the problem and solution identified in paragraphs 1 through 3 of "Ferris's Grand Idea"? Use **two** details from the article to support your response.

4 How do paragraphs 4 and 5 contribute to the article??

A by showing the effects of building the wheel

B by comparing the wheel to other structures

C by explaining the problem the wheel solved

D by detailing the order in which the wheel was built

5 In paragraph 6, what does the word "dismantled" suggest about what happened to the wheel?

A it was moved off a stage

B it was emptied of people

C it was taken apart

D it was traveled around

Directions

Read this passage. Then answer questions 6 through 12.

from

"The Ferris Wheel"

by Denton J. Snider, World's Fair Studies *(1893)*

1 While the Ferris Wheel was in process of construction many people said they would not trust it. A very old man, leaning on his staff one day and looking up at it, declared: "Life is too precious to be risked in that way." But the Wheel started and nearly everybody is taking a ride; men, women and children are seen going up and returning in safety to their friends. Yet some grow pale and get sick at the stomach during the trip; women cry and become hysterical, and sometimes they faint. For most people it is probably a little trial at the start; but there is a feeling that courage needs a taste of discipline when it fears to go where there is no danger. One can often see a workman carried around on the inside of the rim; when the Wheel starts he walks; when it stops for a moment, he inspects a bolt, or taps the megatherion with his hammer, just to hear the ring of the monster's voice.

hysterical = very upset

megatherion = an ancient Greek word that means "mighty beast"

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6 Read these sentences from paragraph 1 of "The Ferris Wheel."

> **While the Ferris Wheel was in process of construction many people said they would not trust it . . . . But the Wheel started and nearly everybody is taking a ride; men, women and children are seen going up and returning in safety to their friends.**

How did the author organize the events described in these sentences?

A by cause and effect

B by compare and contrast

C by problem and solution

D by order of events

7 Based on paragraph 1 of the "The Ferris Wheel," what does the word "inspects" mean?

A removes

B tightens

C looks over

D ignores

8 What is the overall structure in "The Ferris Wheel," and how does the first sentence of the text contribute to that structure? Use **two** details from the passage to support your response.

9 Read this sentence from paragraph 1 of "The Ferris Wheel."

But the Wheel started and nearly everybody is taking a ride. . .

Which paragraph in "Ferris's Grand Idea" best supports this claim?

A paragraph 1

B paragraph 3

C paragraph 4

D paragraph 6

10 Which sentence **best** describes a difference in the way information is provided in the two texts?

A Only "The Ferris Wheel" explains the reasons the Ferris Wheel was built.

B Only "Ferris's Grand Idea" includes details about dates, measurements, and money.

C Only "Ferris's Grand Idea" describes what people experienced while riding on the Ferris Wheel.

D Only "The Ferris Wheel" tells how popular the first Ferris Wheel was with people who attended that World's Fair.

11 Which statement is true about **only** "The Ferris Wheel"?

A It presents events as a firsthand account.

B It presents events as a secondhand account.

C It tells why the Ferris Wheel was invented.

D It tells about the Ferris Wheel that was built in 1893.

Plan your writing for question 12 on another sheet of paper.

12

"Ferris's Grand Idea" and "The Ferris Wheel" are about the same topic. How are they similar? How are they different? Use details from the article and the passage to support your response.

In your response, be sure to

- explain how "Ferris's Grand Idea" and "The Ferris Wheel" are similar
- explain how "Ferris's Grand Idea" and "The Ferris Wheel" are different
- use details from the article and the passage to support your response