

Mr. Ferris and His Wheel

Written by Kathryn Gibbs Davis

Illustrated by Gilbert Ford

about the book

It was a bizarre idea, presented by an eccentric young engineer. Yes, it might be showy, but wouldn't the flimsy contraption collapse? Wouldn't it be undignified? Or frightening? Finally, the young inventor was told he could try – but only with his own money and with barely enough time.

Here's the true, uplifting story of George Ferris and his dazzling, unlikely invention – an invention that would become the world's most magical ride of all time.

about the author

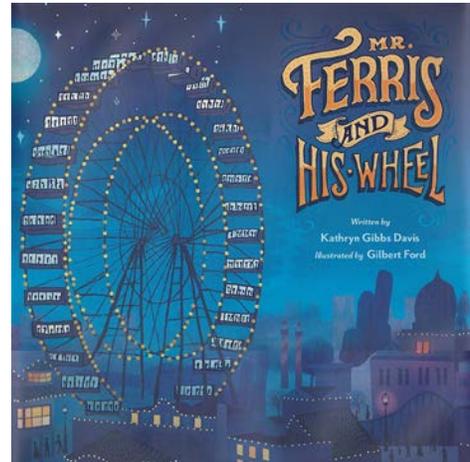
Kathryn Gibbs Davis was seven when she took her first Ferris wheel ride at the Wisconsin State Fair and then celebrated by eating two cream puffs, a Dairyland favorite. The award-winning author of many fiction and nonfiction titles, Kathryn has a gift for combining history and storytelling in a manner that engages readers of many ages. A Manhattan resident, she is a popular visiting author at schools and libraries across the country.

about the illustrator

Gilbert Ford rode his first Ferris wheel when he was six, a ride he describes as majestic and awe-inspiring. His vibrant and fresh illustrations have appeared in books, magazines and newspapers, and advertisements, as well as on toys and billboards. He lives in Brooklyn, New York.

about the guide

This guide is aligned to the Common Core standards for informational text for the 2nd grade. If you teach a different grade, simply visit the Common Core website to find a similar standard in the same strand.



pre-reading

Take a survey of your class to find out how many students have ridden in a Ferris wheel before. Have the students who have ridden one describe the structure to a partner who has not. Then, on the board, brainstorm a list of things the person who engineered or invented it had to figure out.

For example: How to make it turn smoothly enough that people stay safe while riding.

pre-reading activity

Have students mark their opinion of the following statements below. Then, place posters around the four corners of your room that correspond with the rankings and discuss the answers as a class, allowing kids to move between their answers.

Statement:	Strongly Disagree	Disagree	Agree	Strongly Agree	WHY I think this:
One person can invent something amazing.					
Some projects require that each part be perfect.					
You should believe in your own ideas even when other people don't.					
Contests and competitions make people try harder.					

Read the story aloud and answer the following questions.

1. How had Paris wowed the world during their World's Fair?
2. Why did the Chicago judges say no to so many contest entries?
3. What had George Ferris designed before his idea for the wheel?
4. Why was the contest a matter of national pride to him? What does that mean?
5. Explain what could happen if their calculations were off by even an inch?
6. What did Ferris say to the chief who thought the design would collapse because it was too flimsy? What did he mean by that?
7. Where did Ferris get the money for the materials for his bold invention? Why?
8. When construction started, list the challenges the crew faced. Then, put them in most to least difficult.
9. Describe how the structure would be held in place.
10. What types of things did people say about the wheel during construction? Why do you think people had so many doubts?
11. How large, exactly, was the wheel? How precise (exact) was it made to work?
12. Summarize how big the passenger cars were. Compare and contrast them to a modern Ferris wheel.
13. Why do you think George dedicated the wheel to engineers?
14. What could people see when on the wheel? Would you have wanted to take a ride on the first Ferris wheel?
15. What new invention made it visible even at night?

questions for side-notes

1. Why was the Eiffel Tower so important for the time it was built?
2. Explain why World Fairs were important 100 years ago.
3. Why do you think engineers wanted to make skyscrapers? What structure inspired them?
4. Why are alloys stronger than other materials?
5. Explain why pumps had to be used at the wheel construction site.
6. Why do you think the axle was the longest steel ever forged? Who helped create it?
7. Describe George Ferris's original inspiration for his magical wheel.
8. How do spokes work in a wheel? What are they called?
9. What made the wheel run? Why do you think George hid them under a platform?
10. What is the most remarkable fact about the nineteen weeks the Ferris wheel ran? Why do you think so?
11. How did the Ferris wheel also help people accept electricity?
12. Why do you think the fair was called the "White City?" Who else did it inspire?
13. How does the race continue today about Ferris wheels?

R.I. 4 Determine the meaning of words and phrases in a text relevant to grade 2 topic or subject area.

Vocabulary: Good readers can often figure out what a word means even if they have never seen it before by reading closely and looking for clues in the surrounding words or phrases. Fill out this chart from words from the book and practice this important skill.

Word in context:	What I think it means:	Dictionary check:	A picture to help me remember meaning:
Now it was America's turn to impress the world at the 1893 Chicago World's Fair.			
To an ambitious young mechanical engineer this contest was more than a dare.			
His invention would be delicate looking and strong.			
Finally, desperate , they agreed to give George's far-fetched idea a try.			
It was one of the most brutally cold winters in Chicago history.			
George and his brave workers kept frantically digging.			
The tireless crew worked day and night to attach them.			

R.I. 1 Ask and answer such questions as who, what, where, when, why and how to demonstrate understanding of key details in a text.

Fill out the following chart after reading *Mr. Ferris and His Wheel*:

WHO is this story about?	
WHAT is the problem in the story?	
WHEN does the story take place? (present/past, season, weather)	
WHERE does the story take place?	
WHY does he invent the Ferris wheel?	
HOW do people react to the finished wheel?	

writing

Text Types and Purposes: CCSS.ELA-LITERACY.W.1.1

Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, use linking words (e.g. because, and, also) to connect opinion and reasons and provide a concluding statement or section.

Fill out the following chart based on the story. In this chart you can state your opinion or how you felt about the story. Write using capital letters (and names) to start each sentence and a period to finish it.

The title and author:	
Your opinion about the book:	
WHY you felt this way about it:	
AND Why you felt this way or you felt this BECAUSE ...	
Who would you tell to read this book:	

reading standards: foundational skills

Phonics and Word Recognition: 3A Distinguish long and short vowels when reading regularly spelled one-syllable words

In pairs, have students sort the following list of words from the book into the chart below for long and short vowel sounds:

ten, air, so, that, top, one, see, sweep, feet, at, fair, and, it, Jack, here, plan, no, last, dare, pride, roads, had, ten, eye, had, not, still, like, inch, case, told, his, am, steel

Long Vowel "WHEEL"	Short Vowel "BIG"

project: engineering

Using just household items try to construct/design a new type of ride that would thrill ticket holders and keep them safe simultaneously.

Then, take your project outside (in whatever weather conditions exist at the moment) and then decide what types of materials and construction you would need to rethink to make it weather-proof.

Step One: Inspiration

George Ferris was inspired by two things: the water wheel near his home and the precision of a watch.

Look for inspiration for your design in objects and inventions that you already admire.

Objects and inventions that you admire	Qualities that intrigue you or make you wonder how they work