

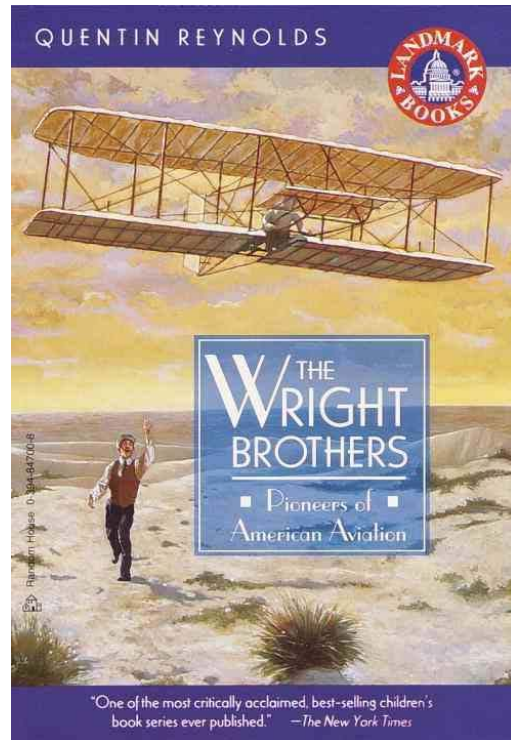
Close Reading Activity

Quentin Reynolds, *The Wright Brothers: Pioneers of American Aviation*

Getting Started

When Orville and Wilbur Wright were just young boys, they built a small snow sled with their mother. They did not own a sled, so before this they always used the sleds of other boys in the neighborhood. During that time, most boys in their town had homemade sleds built by their fathers. Mr. Wright, however, was a preacher and was always too busy to do such things. For this reason, it was the boys' mother that showed them how to draft and design the sled. During this process, the Wrights learned all about wind resistance, friction, and the importance of developing a sophisticated plan on paper before assembling anything with real materials. The sled they built proved to be the fastest in the entire neighborhood, and most of the boys were surprised to learn that it had been the boys' mother who had helped them build it.

This was a formative experience for the Wrights. In fact, their entire childhood helped pave the way for their success later in life. In many ways, the boys were just like other children in their town. They liked to play and explore, they went to school, and they came from a family of modest means. But the Wrights were exceptional in many ways, too. After building their sled, they went on to build several other things, including a printing press that they used to establish a successful printing business and later an even more successful bicycle company. While constantly tinkering and problem solving, the boys became men. As men, they put all of their experiences to work to solve a problem some had been wrestling with for centuries—flight.



Instructions: Answer the following comprehension and analysis questions on the [Close Reading Activity Worksheet](#).

Chapters 1 – 5

Vocabulary:

swoop: to move through the air in an up or down motion

resistance: the force of opposition put on an object, such as wind or friction

rudder: a movable device used to change the direction of a moving vehicle through water, snow, air, or another substance

swerve: to turn to the side suddenly

friction: resistance created when one substance rubs against another

Comprehension Questions:

- What inspired Wilbur to say that he would fly like a bird some day?

This activity was funded by a Library of Congress Teaching with Primary Sources Grant.

- Why were the boys upset when they came back from sledding?
- Why did Orville and Wilbur’s mother introduce the concept of “wind resistance”?
- What method did the Wrights devise to steer their new sled?
- What did Mrs. Wright believe was wrong with the boys’ design to attach wheels to their wagon with an axle?
- How much did the boys get for their home-made kite?

Analysis Questions:

- Why does the writer emphasize the story on the sled and wind resistance?
- What evidence in the book suggests that the kite-flying experience was an important and formative period for the Wright boys?
- What methods of experimentation did the Wrights use on their kite?

Chapters 6 – 8

Vocabulary:

horizontal: parallel to level ground

Comprehension Questions:

- How did Wilbur get injured playing hockey, and what was his injury?
- What type of hand-made gift did the Wright brothers make for their mother?
- What was the reason for Orville and Ed Sines’s partnership?
- How did the Wright brothers put their inventive minds to work to help their father?
- What toy did Mr. Wright buy for Orville on his trip?
- How did Orville and Wilbur make the money they needed to get their newspaper out?
- How much did Orville and Wilbur make by publishing and selling their newspaper?

Analysis Question:

- What do the habits and hobbies of the Wright brothers as boys indicate about their interests?

Chapters 9 – 11

Vocabulary:

over-confident: arrogant or reckless

carelessness: insufficient attention

Comprehension Questions:

- How did Wilbur and Orville convince the bicycle manufacturer to let them sell spare parts for them?
- What was the purpose of organizing a bicycle race?
- Why did Wilbur tell Orville to stay behind during the first part of the race?
- What did Wilbur say was the reason why Orville lost the bicycle race?

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- What name did Orville and Wilbur give their bike?

Analysis Questions:

- Why were the brothers eager to get “every bit of dirt out of the hub” of the bike before the race?
- What were some of the short- and long-term consequences of Orville losing the bike race?

Chapter 12 – 14

Vocabulary:

typhoid fever: an infectious disease that can be fatal if untreated

fierce: very strong

inoculated: pretreated to prevent illness; vaccinated

delirious: a disturbed state of mind, usually from illness

physics: a branch of science concerned with matter and energy

Comprehension Questions:

- When Wilbur first became sick, what did he suspect was the problem?
- What types of things did Wilbur say while he was home sick?
- What book did Orville read to Wilbur while he was recovering from his illness?
- What made Otto Lillenthal’s efforts at mastering flight different from those others attempting the same thing?
- How did the brothers initially find out about Kitty Hawk, NC?

Analysis Question:

- What observations did Orville and Wilbur make in the period after Wilbur’s recovery that convinced them that powered flight might be possible?

Chapter 15 – 18

Vocabulary:

horsepower: a unit of measure to describe the pulling power of an engine

Comprehension Questions:

- Which of the two brothers was the first to pilot the glider in Kitty Hawk?
- What convinced the brothers that they should lie down on the wing rather than sit up, as Lillenthal had done?
- Where did the Wrights attach the rudder they designed, and why?
- Why were the Wrights reluctant to climb high up in the air with their glider?
- Why did the Wrights feel that many people would not take their efforts seriously?
- How did the Wrights test the ability of their flyer to hold the weight of an engine?

Analysis Question:

- What does the author mean when he says that the glider the Wrights designed was “the first glider that had conquered the air”?

Chapter 19 – 20

Vocabulary:

hysterical: in a state of great excitement

Comprehension Questions:

- Why were the Wright brothers famous in Europe before they were famous in their hometown of Dayton?
- What did the English and French men who wanted to purchase the flying machines plan to do with them?
- What did the generals and other officers who attended the flying demonstration in Virginia think of the Wrights’ invention?

Analysis Question:

- What do the reactions of the military men suggest about their intentions?

Using Sources

Reynolds has used a great number of both primary and secondary sources in his book. Primary sources are sources that provide a first-person account of an event. A journal entry by Orville Wright is an example of a primary source. Secondary sources use primary sources to explore the larger context. Reynolds’s book is a secondary source that uses many different primary and other secondary works to describe the life of the Wright brothers.

To better understand how primary and secondary sources work together, select a page from Reynolds’s book that has some quotes or references primary sources like letters from the Wrights, journal entries, or even newspaper articles. Be sure to select a page that discusses events that occurred no earlier than 1900, as these will have the most documentation. Then, research the extensive collection of primary sources in the [Wilbur and Orville Wright Papers at the Library of Congress](#). See if you can find the original primary sources themselves. Once you find one or two, draft a short paragraph summarizing the entire source.

Essay Questions

Select one of the following prompts. Write a brief essay in response to the prompt. Use what you learned from the reading to inform your essay. Be sure to reference one or two of the primary sources Reynolds uses. Consider using the sources themselves if they are located in the [Wilbur and Orville Wright Papers at the Library of Congress](#).

- How does the author use the early life of the Wright brothers to emphasize specific qualities of theirs that ultimately helped them succeed?
- Throughout the book, the author notes how different observations the Wrights made during their lives contributed to their successes at Kitty Hawk. What were these different observations, and how did these observations contribute to their success?